Income & Cost Budgets

Summer Crops – 2017/18

PROTEIENNAVORSINGSTIGTING
PROTEIN RESEARCH FOUNDATION

GRAIN SA
GRAAN SA

OPOT OAK

Bureau for Food and Agricultural Policy
BFAP

OPOT OAK

INCOME & COST BUDGETS FOR SUMMER CROPS - 2017/18 SEASON

Foreword

The Protein Research Foundation (PRF) strives to make a significant contribution to the promotion of local production of protein on a sustainable basis, in order to satisfy the growing demand for protein for animal production purposes as well as the optimal utilisation thereof, which will lead to an increase in the standard of living of all people in the Republic of South Africa. The main objectives of the Protein Research Foundation (PRF) are to replace imported protein used in animal feed with locally produced protein and to encourage the better utilisation of this protein. The objectives are promoted through research funding and technology transfer.

Currently, the Protein Research Foundation (PRF), Grain South Africa (GSA) and the Bureau for Food and Agricultural Policy (BFAP) publish their individual cost of production programs which focusses on key summer- and winter crops produced in South Africa's key agro-ecological zones, both under dryland- and irrigation cultivation. Given the existing activities associated within the organisations and the extent of the coverage of South African agricultural production, these initiatives are integrated to compile the 2017/18 summer crop budgets.

It is acknowledged that regional variation will occur and that estimates will differ from farm to farm. Whilst every care has been taken in preparing this report, it is advised to adjust the estimates according to the farm's respective location, yield potential, cultivation system and/or strategies.

Tel: 012 420 5021

Email: admin@bfap.co.za

Area coverage

Table 1 and Table 2 indicates the area of coverage and include the dryland and irrigated crops. The source of data and collaborators are also included.

Table 1.1: Area coverage: Dryland

Area	Dryland Crops	Source & Collaborators
KwaZulu-Natal		
Bloedrivier	Maize & Soybeans	GSA / BFAP / Individual Farmers
Mpumalanga		
Middelburg / Trichardt	Maize, Soybeans & Grain Sorghum	GSA / BFAP / Individual Farmers
Ermelo	Maize & Soybeans	GSA / BFAP / Individual Farmers
Eastern Free State		
Reitz region	Maize, soybeans, sunflower & dry beans	GSA / VKB / BFAP / Individual Farmers
Western / Northern Free State		
Wesselsbron	Maize	GSA / Senwes / BFAP
Bothaville (high potential)	Maize	GSA / Senwes / BFAP
Western / Northern Free State	Maize, soybeans, sunflower, ground nuts & grain sorghum	GSA / Senwes / BFAP
North West		
Koster	Maize, soybeans & sunflower	GSA / NWK / BFAP / Individual Farmers
Lichtenburg	Maize, soybeans, sunflower & ground nuts	GSA / NWK / BFAP / Individual Farmers

Tel: 012 420 5021
Email: admin@bfap.co.za

Table 1.2: Area coverage: Irrigation

Area	Irrigated Crops	Source & Collaborators
Northern Cape		
GWK Area	Maize, soybeans, ground nuts & sunflower (oil)	GWK, GSA & BFAP
KwaZulu-Natal		
Bergville	Maize & soybeans	GSA & Individual Farmers
North West		
Britz / Northam / Koedoeskop	Maize, soybeans, sunflower & sorghum	GSA, NWK & Individual Farmers
Limpopo		
Loskop Irrigation Scheme	Maize & Soybeans	GSA & Individual Farmers

Tel: 012 420 5021
Email: admin@bfap.co.za

Yield Assumptions

Figure 1 and Figure 2 reports the yield assumptions for dryland and irrigated crops. The assumptions represent target yields and crop input allocation is based on achieving the stipulated target yields. The respective target yields were determined in a round table discussion with industry experts.

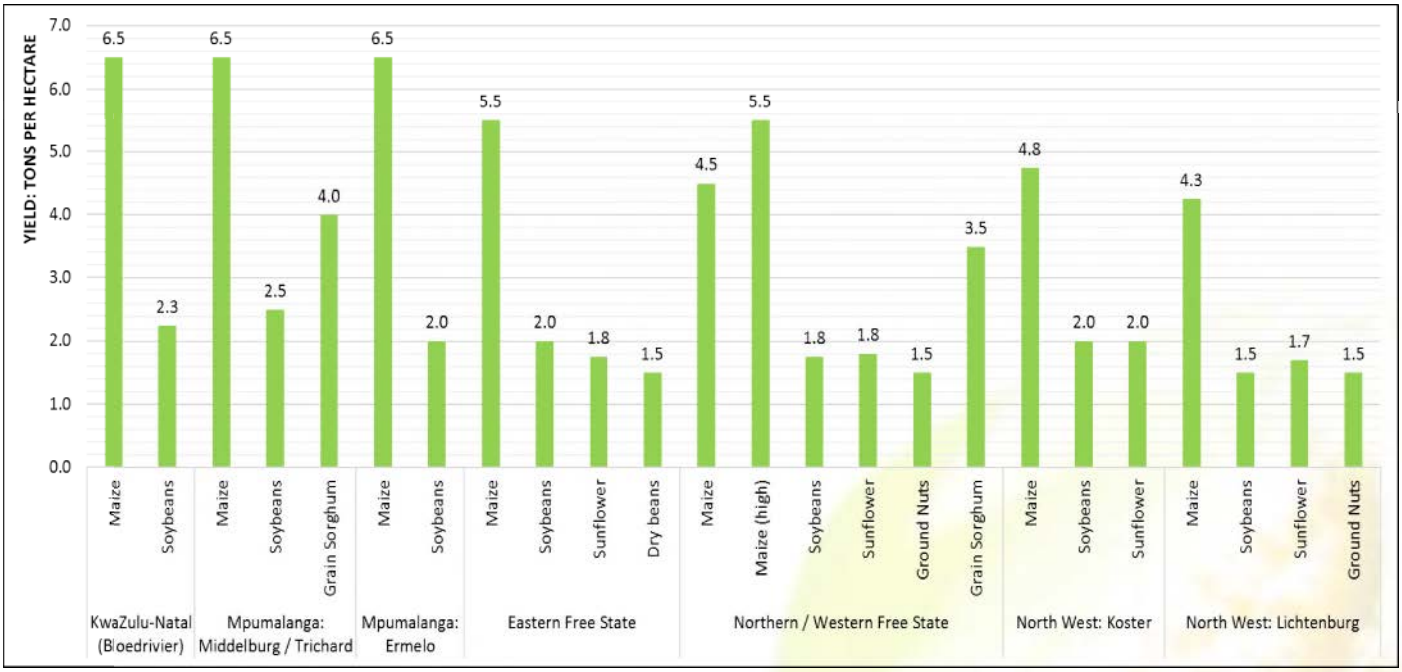

Figure 1.1: Dryland crops yield assumptions

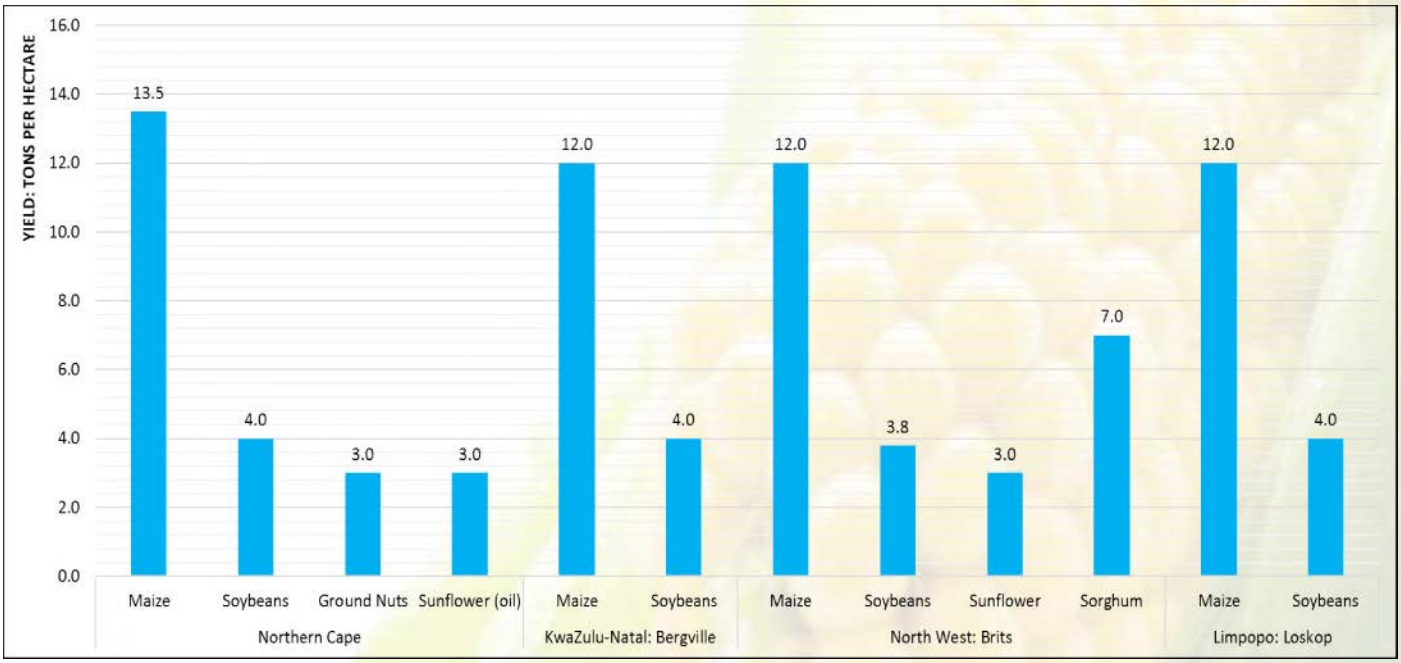

Figure 1.2: Irrigated crops yield assumptions

Tel: 012 420 5021
Email: admin@bfap.co.za

Crop Price Assumptions

On an annual basis, the Bureau for Food and Agricultural Policy (BFAP) presents an outlook of agricultural production, consumption, prices and trade in South Africa over a 10-year period. The information presented is based on assumptions about a range of economic, technological, environmental, political, institutional, and social factors. The outlook is generated by the BFAP system of models. A number of critical assumptions have to be made for baseline projections. One of the most important assumptions is that normal weather conditions will prevail in Southern Africa and around the world; therefore, yields grow constantly over the baseline as technology improves. Assumptions regarding the outlook of macroeconomic conditions are based on a combination of projections developed by the International Monetary Fund (IMF), the World Bank and the Bureau for Economic Research (BER) at Stellenbosch University. Baseline projections for world commodity markets were generated by FAPRI at the University of Missouri. Once the critical assumptions are captured in the BFAP system of models, the Outlook for all commodities is simulated within a closed system of equations. This implies that, for example, any shocks in the grain sector are transmitted to the livestock sector and vice versa. Therefore, for each commodity, important components of supply and demand are identified, after which an equilibrium is established through balance sheet principles by equalling total demand to total supply.

Figure 3 illustrates the commodity price assumptions for white maize, yellow maize, sorghum, sunflower and soybeans that were used in the summer crop budgets for the 2017/18 production season. The sensitivity analysis in the respective crop budgets makes provision for variation in price and yield and indicates the gross margin under each price and yield combination.

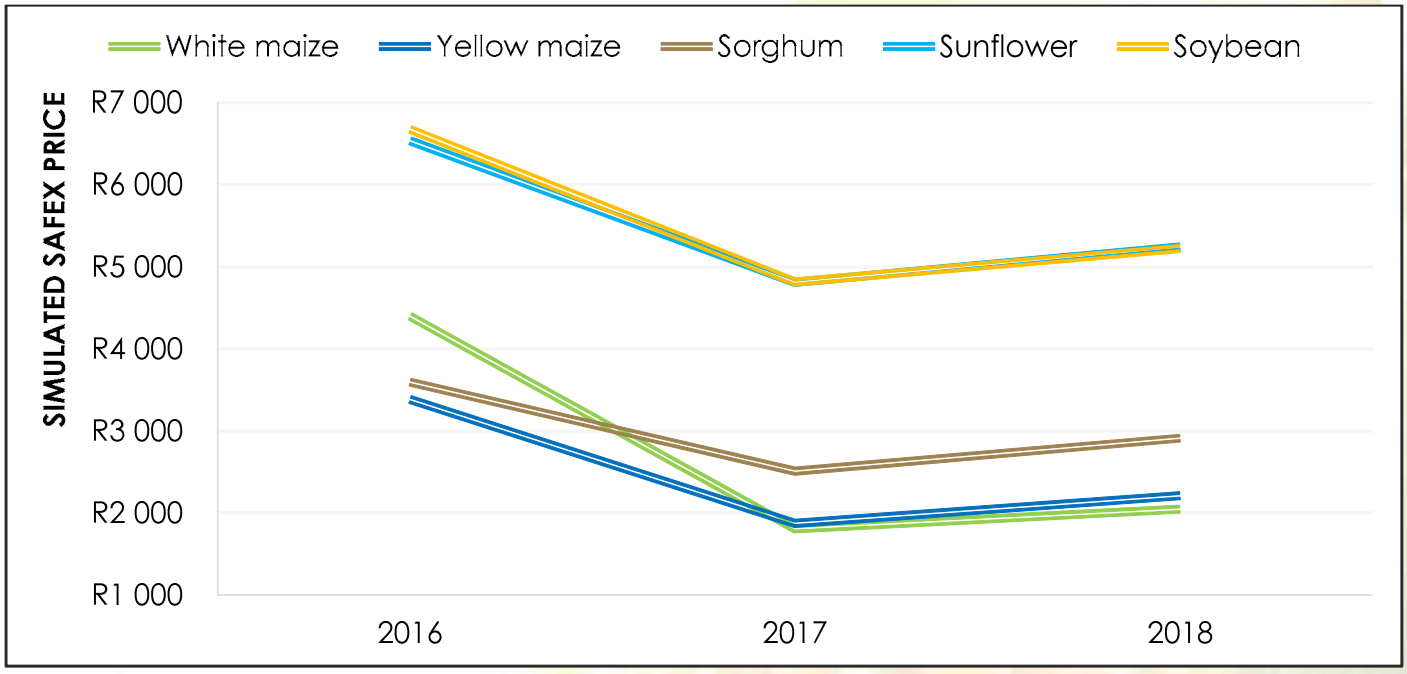

Figure 1.3: BFAP average annual commodity price projections: 2016-2018

Source: BFAP, 2017

Tel: 012 420 5021
Email: admin@bfap.co.za

INCOME & COST BUDGETS – DRYLAND PRODUCTION REGION

KwaZulu-Natal

Table 2.1: Income & cost budgets for maize & soybeans for KwaZulu-Natal (Bloedrivier Region) - Dryland

		KwaZulu-Natal:Bloedrivier	
Crop		Maize	Soybeans
Production System		Dryland	Dryland
1) INCOME			
Yield: Deterministic	T/HA	6.50	2.25
SAFEX SIMULATED PRICE: 2018	R/TON	R2 208	R5 221
Total deductions	R/TON	R369	R59
- Transport differential	R/TON	R309	R-
- Grade differential	R/TON	R-	R-
- Marketing & Handling	R/TON	R60	R59
Price premiums	R/TON	R-	R-
Net Farm Gate Price	R/TON	R1 839	R5 162
GROSS INCOME	**R/HA**	**R11 954**	**R11 614**
2) VARIABLE EXPENDITURES			
Contracting	R/HA	R-	R-
Crop insurance	R/HA	R454	R1 417
Fertilizer	R/HA	R3 556	R1 833
Lime	R/HA	R425	R-
Seed	R/HA	R2 668	R1 142
Fuel	R/HA	R770	R431
Herbicide	R/HA	R916	R771
Insecticide	R/HA	R38	R225
Fungicides	R/HA	R560	R-
Marketing costs	R/HA	R-	R-
Repairs and maintenance	R/HA	R639	R419
Casual labour	R/HA	R231	R-
Aerial spray	R/HA	R-	R-
Other expenditure	R/HA	R-	R-
TOTAL VARIABLE EXPENDITURE	**R/HA**	**R10 256**	**R6 237**
TOTAL VARIABLE EXPENDITURE	**R/TON**	**R1 578**	**R2 772**
3.1) GROSS MARGIN:	**R/HA**	**R1 698**	**R5 377**
3.2) GROSS MARGIN:	**R/TON**	**R261**	**R2 390**

Source: BFAP, GSA & Individual Farmers, 2017

Tel: 012 420 5021
Email: admin@bfap.co.za

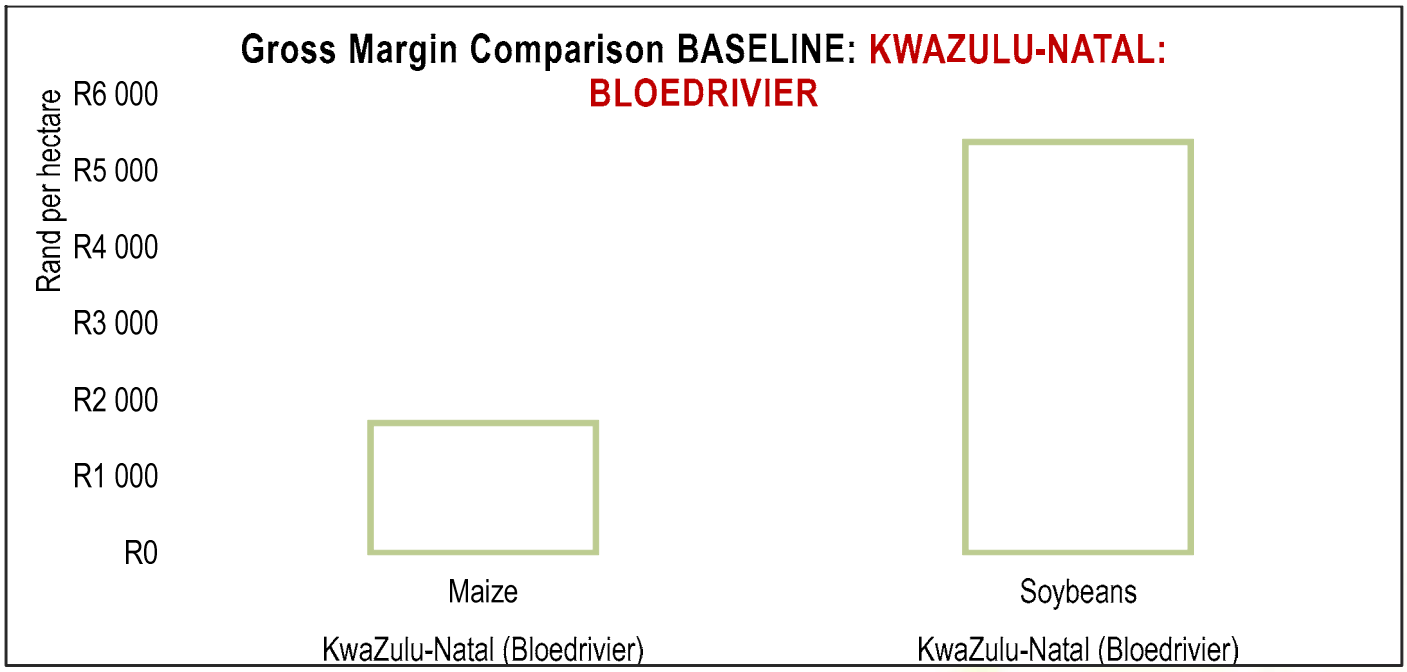

Figure 2.1: Gross margin comparison – Baseline: KwaZulu-Natal (Bloedrivier Region)

SOYBEANS SENSITIVITY ANALYSIS (GROSS MARGIN PER HECTARE): KWAZULU-NATAL: BLOEDRIVIER

PRODUCERS PRICE	YIELD (T/HA) 1.50	1.75	2.00	**2.25**	2.50	2.75	3.00
R4 250	R 138	R 1 200	R 2 263	**R 3 325**	R 4 388	R 5 450	R 6 513
R4 500	R 513	R 1 638	R 2 763	**R 3 888**	R 5 013	R 6 138	R 7 263
R4 750	R 888	R 2 075	R 3 263	**R 4 450**	R 5 638	R 6 825	R 8 013
R5 000	R 1 263	R 2 513	R 3 763	**R 5 013**	R 6 263	R 7 513	R 8 763
R5 162	**R 1 506**	**R 2 796**	**R 4 087**	**R 5 377**	**R 6 668**	**R 7 958**	**R 9 249**
R5 500	R 2 013	R 3 388	R 4 763	**R 6 138**	R 7 513	R 8 888	R 10 263
R5 750	R 2 388	R 3 825	R 5 263	**R 6 700**	R 8 138	R 9 575	R 11 013
R6 000	R 2 763	R 4 263	R 5 763	**R 7 263**	R 8 763	R 10 263	R 11 763
R6 250	R 3 138	R 4 700	R 6 263	**R 7 825**	R 9 388	R 10 950	R 12 513

SOYBEANS MARGIN ABOVE / BELOW MAIZE (GROSS MARGIN PER HECTARE): KWAZULU-NATAL: BLOEDRIVIER

YIELD PRICE (R/TON)	R 4 500	R 4 750	R 5 000	**R 5 162**	R 5 500	R 5 750	R 6 000
1.25	-R 2 310	-R 1 998	-R 1 685	**-R 1 483**	-R 1 060	-R 748	-R 435
1.50	-R 1 185	-R 810	-R 435	**-R 192**	R 315	R 690	R 1 065
1.75	-R 60	R 377	R 815	**R 1 098**	R 1 690	R 2 127	R 2 565
2.00	R 1 065	R 1 565	R 2 065	**R 2 389**	R 3 065	R 3 565	R 4 065
2.25	**R 2 190**	**R 2 752**	**R 3 315**	**R 3 679**	**R 4 440**	**R 5 002**	**R 5 565**
2.50	R 3 315	R 3 940	R 4 565	**R 4 970**	R 5 815	R 6 440	R 7 065
2.75	R 4 440	R 5 127	R 5 815	**R 6 260**	R 7 190	R 7 877	R 8 565
3.00	R 5 565	R 6 315	R 7 065	**R 7 551**	R 8 565	R 9 315	R 10 065
3.25	R 6 690	R 7 502	R 8 315	**R 8 841**	R 9 940	R 10 752	R 11 565

Notes:

- The cost items reflect the input allocation based on the target yield for the respective crops.
- Although some expenditure items are zero, it is reflected in the budgets to allow for individual inclusion.
- The cost of fuel includes pre-harvest and harvesting costs with the assumption that own machinery is used.
- The cost for soybean seed reflects a combination of own- and purchased seed.
- There will be large fluctuations for insurance cost (hail) based on the associated risk in respective areas. It is advised that producers adjust this cost based on their individual premiums.
- It is important to note that overhead costs are not included and should be accounted for.

Tel: 012 420 5021
Email: admin@bfap.co.za

Mpumalanga

Table 2.2: Income & cost budgets for maize, soybeans & grain sorghum for Mpumalanga - Dryland

		Middelburg / Trichardt			Ermelo	
Crop		Maize	Soybeans	Grain Sorghum	Maize	Soybeans
Production System		Dryland	Dryland	Dryland	Dryland	Dryland
1) INCOME						
Yield: Deterministic	T/HA	6.50	2.50	4.00	6.50	2.00
SAFEX SIMULATED PRICE / PRODUCER PRICE: 2018	R/TON	R2 208	R5 221	R2 911	R2 208	R5 221
Total deductions	R/TON	R269	R59	R63	R321	R60
- Transport differential	R/TON	R209	R-	R-	R261	R-
- Grade differential	R/TON	R-	R-	R-	R-	R-
- Marketing & Handling	R/TON	R60	R59	R63	R60	R60
Price premiums	R/TON	R-	R-	R-	R-	R-
Net Farm Gate Price	R/TON	R1 939	R5 162	R2 848	R1 887	R5 161
GROSS INCOME	**R/HA**	**R12 604**	**R12 905**	**R11 391**	**R12 266**	**R10 322**
2) VARIABLE EXPENDITURES						
Contracting	R/HA	R-	R-	R-	R-	R-
Crop insurance	R/HA	R479	R1 574	R342	R466	R1 259
Fertilizer	R/HA	R2 980	R1 879	R1 986	R2 980	R1 693
Lime	R/HA	R425	R-	R425	R425	R-
Seed	R/HA	R2 183	R1 142	R540	R2 183	R1 047
Fuel	R/HA	R747	R592	R793	R747	R574
Herbicide	R/HA	R1 236	R857	R537	R1 236	R857
Insecticide	R/HA	R232	R225	R372	R232	R225
Fungicides	R/HA	R-	R-	R560	R-	R-
Marketing costs	R/HA	R-	R-	R-	R-	R-
Repairs and maintenance	R/HA	R631	R504	R653	R631	R500
Casual labour	R/HA	R231	R-	R-	R231	R-
Aerial spray	R/HA	R-	R-	R-	R-	R-
Other expenditure	R/HA	R-	R-	R-	R-	R-
TOTAL VARIABLE EXPENDITURE	R/HA	R9 143	R6 774	R6 208	R9 130	R6 155
TOTAL VARIABLE EXPENDITURE	R/TON	R1 407	R2 710	R1 552	R1 405	R3 078
3.1) GROSS MARGIN:	**R/HA**	**R3 461**	**R6 131**	**R5 183**	**R3 136**	**R4 167**
3.2) GROSS MARGIN:	**R/TON**	**R532**	**R2 452**	**R1 296**	**R482**	**R2 083**

Source: BFAP, GSA & Individual Farmers, 2017

Tel: 012 420 5021
Email: admin@bfap.co.za

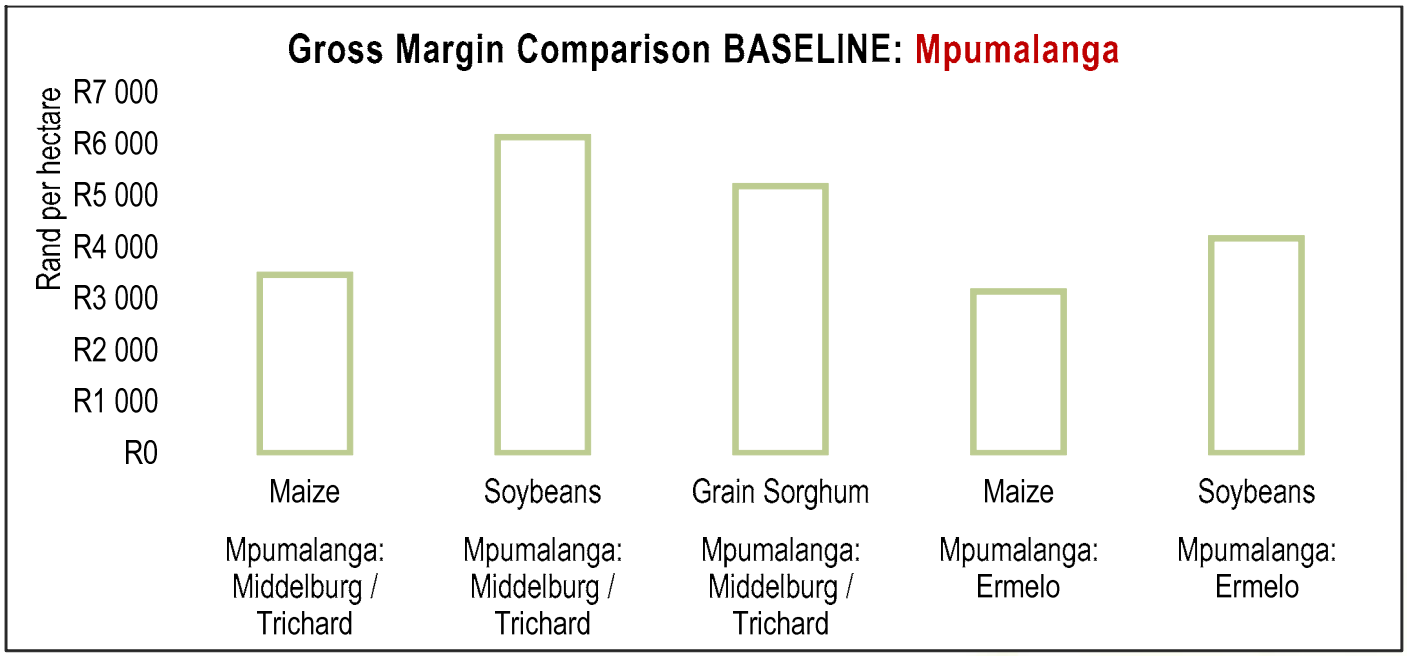

Figure 2.2: Gross margin comparison – Baseline: Mpumalanga

SOYBEANS SENSITIVITY ANALYSIS (GROSS MARGIN PER HECTARE): MPUMALANGA: MIDDELBURG / TRICHARD

YIELD (T/HA)													
PRODUCERS PRICE	1.75		2.00		2.25		**2.50**		2.75		3.00		3.25
R4 250	R 664	R	1 726	R	2 789	**R**	**3 851**	R	4 914	R	5 976	R	7 039
R4 500	R 1 101	R	2 226	R	3 351	**R**	**4 476**	R	5 601	R	6 726	R	7 851
R4 750	R 1 539	R	2 726	R	3 914	**R**	**5 101**	R	6 289	R	7 476	R	8 664
R5 000	R 1 976	R	3 226	R	4 476	**R**	**5 726**	R	6 976	R	8 226	R	9 476
R5 162	**R 2 260**	**R**	**3 550**	**R**	**4 841**	**R**	**6 131**	**R**	**7 422**	**R**	**8 712**	**R**	**10 003**
R5 500	R 2 851	R	4 226	R	5 601	**R**	**6 976**	R	8 351	R	9 726	R	11 101
R6 000	R 3 726	R	5 226	R	6 726	**R**	**8 226**	R	9 726	R	11 226	R	12 726
R6 500	R 4 601	R	6 226	R	7 851	**R**	**9 476**	R	11 101	R	12 726	R	14 351
R7 000	R 5 476	R	7 226	R	8 976	**R**	**10 726**	R	12 476	R	14 226	R	15 976

SOYBEANS SENSITIVITY ANALYSIS (GROSS MARGIN PER HECTARE): MPUMALANGA: ERMELO

YIELD (T/HA)													
PRODUCERS PRICE	1.25		1.50		1.75		**2.00**		2.25		2.50		2.75
R4 250	-R 843	R	220	R	1 282	**R**	**2 345**	R	3 407	R	4 470	R	5 532
R4 500	-R 530	R	595	R	1 720	**R**	**2 845**	R	3 970	R	5 095	R	6 220
R4 750	-R 218	R	970	R	2 157	**R**	**3 345**	R	4 532	R	5 720	R	6 907
R5 000	R 95	R	1 345	R	2 595	**R**	**3 845**	R	5 095	R	6 345	R	7 595
R5 161	**R 296**	**R**	**1 586**	**R**	**2 877**	**R**	**4 167**	**R**	**5 457**	**R**	**6 747**	**R**	**8 038**
R5 500	R 720	R	2 095	R	3 470	**R**	**4 845**	R	6 220	R	7 595	R	8 970
R6 000	R 1 345	R	2 845	R	4 345	**R**	**5 845**	R	7 345	R	8 845	R	10 345
R6 500	R 1 970	R	3 595	R	5 220	**R**	**6 845**	R	8 470	R	10 095	R	11 720
R7 000	R 2 595	R	4 345	R	6 095	**R**	**7 845**	R	9 595	R	11 345	R	13 095

SOYBEANS MARGIN ABOVE / BELOW MAIZE (GROSS MARGIN PER HECTARE): MPUMALANGA: MIDDELBURG / TRICHARD

YIELD PRICE (R/TON)													
	R 4 500	R	4 750	R	5 000	**R**	**5 162**	R	5 500	R	5 750	R	6 000
1.50	-R 3 485	-R	3 110	-R	2 735	**-R**	**2 492**	-R	1 985	-R	1 610	-R	1 235
1.75	-R 2 360	-R	1 922	-R	1 485	**-R**	**1 201**	-R	610	-R	172	R	265
2.00	-R 1 235	-R	735	-R	235	**R**	**89**	R	765	R	1 265	R	1 765
2.25	-R 110	R	453	R	1 015	**R**	**1 380**	R	2 140	R	2 703	R	3 265
2.50	**R 1 015**	**R**	**1 640**	**R**	**2 265**	**R**	**2 670**	**R**	**3 515**	**R**	**4 140**	**R**	**4 765**
2.75	R 2 140	R	2 828	R	3 515	**R**	**3 961**	R	4 890	R	5 578	R	6 265
3.00	R 3 265	R	4 015	R	4 765	**R**	**5 251**	R	6 265	R	7 015	R	7 765
3.25	R 4 390	R	5 203	R	6 015	**R**	**6 542**	R	7 640	R	8 453	R	9 265
3.50	R 5 515	R	6 390	R	7 265	**R**	**7 832**	R	9 015	R	9 890	R	10 765

Tel: 012 420 5021
Email: admin@bfap.co.za

SOYBEANS MARGIN ABOVE / BELOW MAIZE (GROSS MARGIN PER HECTARE): MPUMALANGA: ERMELO												
YIELD PRICE (R/TON)												
	R	4 500	R	4 750	R	5 000	**R**	**5 161**	R	5 500	R	5 750	R	6 000
1.00	-R	4 791	-R	4 541	-R	4 291	**-R**	**4 130**	-R	3 791	-R	3 541	-R	3 291
1.25	-R	3 666	-R	3 353	-R	3 041	**-R**	**2 840**	-R	2 416	-R	2 103	-R	1 791
1.50	-R	2 541	-R	2 166	-R	1 791	**-R**	**1 549**	-R	1 041	-R	666	-R	291
1.75	-R	1 416	-R	978	-R	541	**-R**	**259**	R	334	R	772	R	1 209
2.00	**-R**	**291**	**R**	**209**	**R**	**709**	**R**	**1 031**	**R**	**1 709**	**R**	**2 209**	**R**	**2 709**
2.25	R	834	R	1 397	R	1 959	**R**	**2 321**	R	3 084	R	3 647	R	4 209
2.50	R	1 959	R	2 584	R	3 209	**R**	**3 612**	R	4 459	R	5 084	R	5 709
2.75	R	3 084	R	3 772	R	4 459	**R**	**4 902**	R	5 834	R	6 522	R	7 209
3.00	R	4 209	R	4 959	R	5 709	**R**	**6 192**	R	7 209	R	7 959	R	8 709

Notes:

- The cost items reflect the input allocation based on the target yield for the respective crops.
- Although some expenditure items are zero, it is reflected in the budgets to allow for individual inclusion.
- The cost of fuel includes pre-harvest and harvesting costs with the assumption that own machinery is used.
- The cost for soybean seed reflects a combination of own- and purchased seed.
- There will be large fluctuations for insurance cost (hail) based on the associated risk in respective areas. It is advised that producers adjust this cost based on their individual premiums.
- It is important to note that overhead costs are not included and should be accounted for.

Tel: 012 420 5021
Email: admin@bfap.co.za

Eastern Free State

Table 2.3: Income & cost budgets for maize, soybeans, sunflower & dry beans for Eastern Free State - Dryland

Crop		Maize	Soybeans	Sunflower	Dry beans
Production System		Dryland	Dryland	Dryland	Dryland
1) INCOME					
Yield: Deterministic	T/HA	5.50	2.00	1.75	1.50
SAFEX SIMULATED PRICE / PRODUCER PRICE: 2018	R/TON	R2 208	R5 221	R5 243	R12 500
Total deductions	R/TON	R305	R62	R347	R62
- Transport differential	R/TON	R245	R-	R254	R-
- Grade differential	R/TON	R-	R-	R-	R-
- Marketing & Handling	R/TON	R60	R62	R93	R62
Price premiums	R/TON	R-	R-	R-	R-
Net Farm Gate Price	R/TON	R1 903	R5 159	R4 896	R12 438
GROSS INCOME	**R/HA**	**R10 467**	**R10 318**	**R8 567**	**R18 657**
2) VARIABLE EXPENDITURES					
Contracting	R/HA	R-	R-	R-	R750
Crop insurance	R/HA	R398	R1 264	R634	R1 663
Fertilizer	R/HA	R2 768	R1 252	R1 618	R1 950
Lime	R/HA	R425	R-	R-	R555
Seed	R/HA	R1 601	R952	R547	R1 584
Fuel	R/HA	R813	R587	R635	R651
Herbicide	R/HA	R715	R640	R379	R864
Insecticide	R/HA	R161	R740	R26	R1 336
Fungicides	R/HA	R-	R-	R-	R-
Marketing costs	R/HA	R-	R-	R-	R-
Repairs and maintenance	R/HA	R783	R511	R531	R531
Casual labour	R/HA	R231	R-	R-	R450
Aerial spray	R/HA	R-	R-	R-	R-
Other expenditure	R/HA	R-	R-	R-	R-
TOTAL VARIABLE EXPENDITURE	**R/HA**	**R7 895**	**R5 946**	**R4 370**	**R10 335**
TOTAL VARIABLE EXPENDITURE	**R/TON**	**R1 436**	**R2 973**	**R2 497**	**R6 890**
3.1) GROSS MARGIN:	**R/HA**	**R2 571**	**R4 372**	**R4 197**	**R8 322**
3.2) GROSS MARGIN:	**R/TON**	**R468**	**R2 186**	**R2 398**	**R5 548**

Source: BFAP, GSA, VKB & Individual Farmers, 2017

Tel: 012 420 5021
Email: admin@bfap.co.za

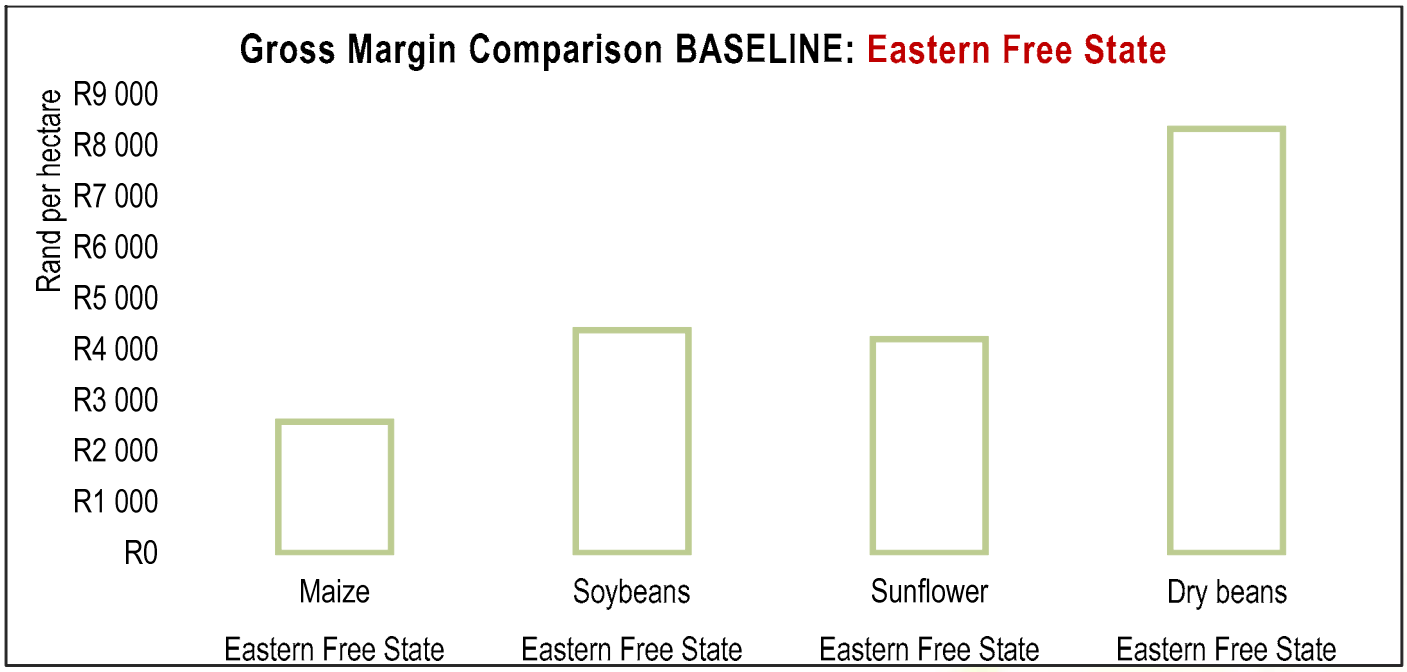

Figure 2.3: Gross margin comparison – Baseline: Eastern Free State

SOYBEANS SENSITIVITY ANALYSIS (GROSS MARGIN PER HECTARE): EASTERN FREE STATE

	YIELD (T/HA)												
PRODUCERS PRICE	1.50		1.75		2.00		**2.00**		2.50		2.75		3.00
R4 250	R 429	R	1 491	R	2 554	R	**2 554**	R	4 679	R	5 741	R	6 804
R4 500	R 804	R	1 929	R	3 054	R	**3 054**	R	5 304	R	6 429	R	7 554
R4 750	R 1 179	R	2 366	R	3 554	R	**3 554**	R	5 929	R	7 116	R	8 304
R5 000	R 1 554	R	2 804	R	4 054	R	**4 054**	R	6 554	R	7 804	R	9 054
R5 159	**R 1 792**	**R**	**3 082**	**R**	**4 372**	**R**	**4 372**	**R**	**6 951**	**R**	**8 241**	**R**	**9 531**
R5 500	R 2 304	R	3 679	R	5 054	R	**5 054**	R	7 804	R	9 179	R	10 554
R6 000	R 3 054	R	4 554	R	6 054	R	**6 054**	R	9 054	R	10 554	R	12 054
R6 500	R 3 804	R	5 429	R	7 054	R	**7 054**	R	10 304	R	11 929	R	13 554
R7 000	R 4 554	R	6 304	R	8 054	R	**8 054**	R	11 554	R	13 304	R	15 054

SUNFLOWER SENSITIVITY ANALYSIS (GROSS MARGIN PER HECTARE): EASTERN FREE STATE

	YIELD (T/HA)												
PRODUCERS PRICE	1.00		1.25		1.50		**1.75**		2.00		2.25		2.50
R4 000	-R 370	R	630	R	1 630	R	**2 630**	R	3 630	R	4 630	R	5 630
R4 250	-R 120	R	942	R	2 005	R	**3 067**	R	4 130	R	5 192	R	6 255
R4 500	R 130	R	1 255	R	2 380	R	**3 505**	R	4 630	R	5 755	R	6 880
R4 750	R 380	R	1 567	R	2 755	R	**3 942**	R	5 130	R	6 317	R	7 505
R4 896	**R 525**	**R**	**1 749**	**R**	**2 973**	**R**	**4 197**	**R**	**5 421**	**R**	**6 645**	**R**	**7 869**
R5 000	R 630	R	1 880	R	3 130	R	**4 380**	R	5 630	R	6 880	R	8 130
R5 250	R 880	R	2 192	R	3 505	R	**4 817**	R	6 130	R	7 442	R	8 755
R5 500	R 1 130	R	2 505	R	3 880	R	**5 255**	R	6 630	R	8 005	R	9 380
R5 750	R 1 380	R	2 817	R	4 255	R	**5 692**	R	7 130	R	8 567	R	10 005

Tel: 012 420 5021
Email: admin@bfap.co.za

SOYBEANS MARGIN ABOVE / BELOW MAIZE (GROSS MARGIN PER HECTARE): EASTERN FREE STATE												
YIELD	PRICE (R/TON)											
	R	4 500	R	4 750	R	5 000	**R**	**5 159**	R	5 500	R	5 750	R	6 000
1.25	-R	2 893	-R	2 580	-R	2 268	**-R**	**2 069**	-R	1 643	-R	1 330	-R	1 018
1.50	-R	1 768	-R	1 393	-R	1 018	**-R**	**779**	-R	268	R	107	R	482
1.75	-R	643	-R	205	R	232	**R**	**510**	R	1 107	R	1 545	R	1 982
2.00	R	482	R	982	R	1 482	**R**	**1 800**	R	2 482	R	2 982	R	3 482
2.00	**R**	**482**	**R**	**982**	**R**	**1 482**	**R**	**1 800**	**R**	**2 482**	**R**	**2 982**	**R**	**3 482**
2.75	R	3 857	R	4 545	R	5 232	**R**	**5 669**	R	6 607	R	7 295	R	7 982
3.00	R	4 982	R	5 732	R	6 482	**R**	**6 959**	R	7 982	R	8 732	R	9 482
3.25	R	6 107	R	6 920	R	7 732	**R**	**8 249**	R	9 357	R	10 170	R	10 982
3.50	R	7 232	R	8 107	R	8 982	**R**	**9 539**	R	10 732	R	11 607	R	12 482

Notes:

- The cost items reflect the input allocation based on the target yield for the respective crops.
- Although some expenditure items are zero, it is reflected in the budgets to allow for individual inclusion.
- The cost of fuel includes pre-harvest and harvesting costs with the assumption that own machinery is used.
- The cost for soybean seed reflects a combination of own- and purchased seed.
- There will be large fluctuations for insurance cost (hail) based on the associated risk in respective areas. It is advised that producers adjust this cost based on their individual premiums.
- It is important to note that overhead costs are not included and should be accounted for.

Tel: 012 420 5021
Email: admin@bfap.co.za

Western / Northern Free State

Table 2.4: Income & cost budgets for maize, soybeans, sunflower, ground nuts & grain sorghum for Western / Northern Free State - Dryland

Area		Wessels-bron	Botha-ville	Western / Northern Free State			
Crop		Maize	Maize (high)	Soybean	Sunflower	Ground Nuts	Grain Sorghum
Production System		Dryland	Dryland	Dryland	Dryland	Dryland	Dryland
1) INCOME							
Yield: Deterministic	T/HA	4.50	5.50	1.75	1.80	1.50	3.50
SAFEX SIMULATED PRICE / PRODUCER PRICE: 2018	R/TON	R2 045	R2 045	R5 221	R5 243	R10 140	R2 911
Total deductions	R/TON	R332	R271	R63	R312	R-	R80
- Transport differential	R/TON	R269	R208	R-	R219	R-	R-
- Grade differential	R/TON	R-	R-	R-	R-	R-	R17
- Marketing & Handling	R/TON	R63	R63	R63	R93	R-	R63
Price premiums	R/TON	R-	R-	R-	R-	R-	R-
Net Farm Gate Price	R/TON	R1 713	R1 774	R5 158	R4 931	R10 140	R2 831
GROSS INCOME	**R/HA**	**R7 708**	**R9 757**	**R9 026**	**R8 875**	**R16 561**	**R9 909**
2) VARIABLE EXPENDITURES							
Contracting	R/HA	R-	R-	R-	R-	R-	R-
Crop insurance	R/HA	R293	R371	R772	R444	R629	R297
Fertilizer	R/HA	R2 310	R2 847	R812	R1 395	R845	R1 711
Lime	R/HA	R425	R425	R-	R-	R557	R425
Seed	R/HA	R970	R1 140	R666	R581	R1 083	R386
Fuel	R/HA	R941	R900	R836	R913	R931	R913
Herbicide	R/HA	R605	R605	R268	R732	R615	R553
Insecticide	R/HA	R174	R174	R408	R33	R583	R517
Fungicides	R/HA	R-	R-	R-	R-	R-	R-
Marketing costs	R/HA	R-	R-	R-	R-	R-	R-
Repairs and maintenance	R/HA	R737	R761	R685	R706	R927	R717
Casual labour	R/HA	R208	R208	R-	R-	R900	R-
Aerial spray	R/HA	R-	R-	R-	R-	R-	R-
Other expenditure	R/HA	R-	R-	R-	R-	R500	R-
TOTAL VARIABLE EXPENDITURE	**R/HA**	**R6 662**	**R7 431**	**R4 448**	**R4 804**	**R7 570**	**R5 519**
TOTAL VARIABLE EXPENDITURE	**R/TON**	**R1 480**	**R1 351**	**R2 542**	**R2 669**	**R5 047**	**R1 577**
3.1) GROSS MARGIN:	**R/HA**	**R1 046**	**R2 326**	**R4 578**	**R4 071**	**R8 990**	**R4 390**
3.2) GROSS MARGIN:	**R/TON**	**R233**	**R423**	**R2 616**	**R2 262**	**R5 994**	**R1 254**

Source: BFAP, GSA & Senwes, 2017

Tel: 012 420 5021
Email: admin@bfap.co.za

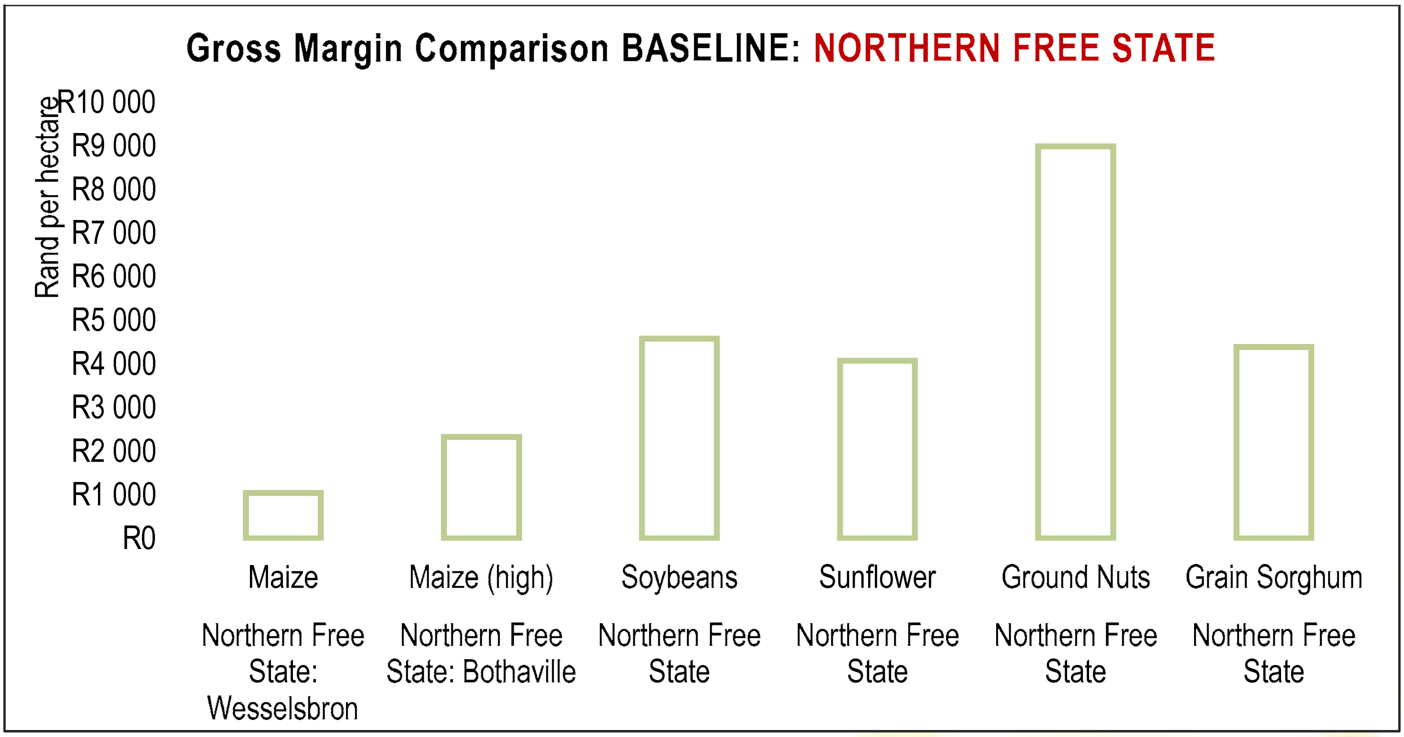

Figure 2.4: Gross margin comparison – Baseline: Western / Northern Free State

SOYBEANS SENSITIVITY ANALYSIS (GROSS MARGIN PER HECTARE): NORTHERN FREE STATE

PRODUCERS YIELD (T/HA)							
PRICE	1.00	1.25	1.50	**1.75**	2.00	2.25	2.50
R4 250	-R 198	R 864	R 1 927	**R 2 989**	R 4 052	R 5 114	R 6 177
R4 500	R 52	R 1 177	R 2 302	**R 3 427**	R 4 552	R 5 677	R 6 802
R4 750	R 302	R 1 489	R 2 677	**R 3 864**	R 5 052	R 6 239	R 7 427
R5 000	R 552	R 1 802	R 3 052	**R 4 302**	R 5 552	R 6 802	R 8 052
R5 158	**R 710**	**R 1 999**	**R 3 289**	**R 4 578**	**R 5 867**	**R 7 157**	**R 8 446**
R5 500	R 1 052	R 2 427	R 3 802	**R 5 177**	R 6 552	R 7 927	R 9 302
R6 000	R 1 552	R 3 052	R 4 552	**R 6 052**	R 7 552	R 9 052	R 10 552
R6 500	R 2 052	R 3 677	R 5 302	**R 6 927**	R 8 552	R 10 177	R 11 802
R7 000	R 2 552	R 4 302	R 6 052	**R 7 802**	R 9 552	R 11 302	R 13 052

SUNFLOWER SENSITIVITY ANALYSIS (GROSS MARGIN PER HECTARE): NORTHERN FREE STATE

PRODUCERS YIELD (T/HA)							
PRICE	1.00	1.25	1.50	**1.80**	2.00	2.25	2.50
R4 250	-R 554	R 509	R 1 571	**R 2 846**	R 3 696	R 4 759	R 5 821
R4 500	-R 304	R 821	R 1 946	**R 3 296**	R 4 196	R 5 321	R 6 446
R4 750	-R 54	R 1 134	R 2 321	**R 3 746**	R 4 696	R 5 884	R 7 071
R4 931	**R 127**	**R 1 360**	**R 2 592**	**R 4 071**	**R 5 058**	**R 6 290**	**R 7 523**
R5 250	R 446	R 1 759	R 3 071	**R 4 646**	R 5 696	R 7 009	R 8 321
R5 500	R 696	R 2 071	R 3 446	**R 5 096**	R 6 196	R 7 571	R 8 946
R5 750	R 946	R 2 384	R 3 821	**R 5 546**	R 6 696	R 8 134	R 9 571
R6 000	R 1 196	R 2 696	R 4 196	**R 5 996**	R 7 196	R 8 696	R 10 196
R6 250	R 1 446	R 3 009	R 4 571	**R 6 446**	R 7 696	R 9 259	R 10 821

Tel: 012 420 5021
Email: admin@bfap.co.za

GROUND NUTS SENSITIVITY ANALYSIS (GROSS MARGIN PER HECTARE): NORTHERN FREE STATE														
PRODUCERS YIELD (T/HA)														
PRICE		0.75		1.00		1.25		**1.50**		1.75		2.00		2.25
R8 750	-R	333	R	2 080	R	4 492	**R**	**6 905**	R	9 317	R	11 730	R	14 142
R9 250	R	42	R	2 580	R	5 117	**R**	**7 655**	R	10 192	R	12 730	R	15 267
R9 750	R	417	R	3 080	R	5 742	**R**	**8 405**	R	11 067	R	13 730	R	16 392
R10 250	R	792	R	3 580	R	6 367	**R**	**9 155**	R	11 942	R	14 730	R	17 517
R10 140	**R**	**710**	**R**	**3 470**	**R**	**6 230**	**R**	**8 990**	**R**	**11 750**	**R**	**14 511**	**R**	**17 271**
R11 500	R	1 730	R	4 830	R	7 930	**R**	**11 030**	R	14 130	R	17 230	R	20 330
R12 000	R	2 105	R	5 330	R	8 555	**R**	**11 780**	R	15 005	R	18 230	R	21 455
R12 500	R	2 480	R	5 830	R	9 180	**R**	**12 530**	R	15 880	R	19 230	R	22 580
R13 000	R	2 855	R	6 330	R	9 805	**R**	**13 280**	R	16 755	R	20 230	R	23 705

SOYBEANS MARGIN ABOVE / BELOW MAIZE (GROSS MARGIN PER HECTARE): NORTHERN FREE STATE														
YIELD	PRICE (R/TON)													
	R	4 500	R	4 750	R	5 000	R	**5 158**	R	5 500	R	5 750	R	6 000
0.75	-R	2 120	-R	1 932	-R	1 745	**-R**	**1 626**	-R	1 370	-R	1 182	-R	995
1.00	-R	995	-R	745	-R	495	**-R**	**337**	R	5	R	255	R	505
1.25	R	130	R	443	R	755	**R**	**953**	R	1 380	R	1 693	R	2 005
1.50	R	1 255	R	1 630	R	2 005	**R**	**2 242**	R	2 755	R	3 130	R	3 505
1.75	**R**	**2 380**	**R**	**2 818**	**R**	**3 255**	**R**	**3 532**	**R**	**4 130**	**R**	**4 568**	**R**	**5 005**
2.00	R	3 505	R	4 005	R	4 505	**R**	**4 821**	R	5 505	R	6 005	R	6 505
2.25	R	4 630	R	5 193	R	5 755	**R**	**6 111**	R	6 880	R	7 443	R	8 005
2.50	R	5 755	R	6 380	R	7 005	**R**	**7 400**	R	8 255	R	8 880	R	9 505
2.75	R	6 880	R	7 568	R	8 255	**R**	**8 690**	R	9 630	R	10 318	R	11 005

Notes:

- The cost items reflect the input allocation based on the target yield for the respective crops.
- Although some expenditure items are zero, it is reflected in the budgets to allow for individual inclusion.
- The cost of fuel includes pre-harvest and harvesting costs with the assumption that own machinery is used.
- The cost for soybean seed reflects a combination of own- and purchased seed.
- There will be large fluctuations for insurance cost (hail) based on the associated risk in respective areas. It is advised that producers adjust this cost based on their individual premiums.
- It is important to note that overhead costs are not included and should be accounted for.

Tel: 012 420 5021
Email: admin@bfap.co.za

North West: Koster

Table 2.5: Income & cost budgets for maize, soybeans & sunflower for North West: Koster region - Dryland

Area		North West: Koster		
Crop		Maize	Soybeans	Sunflower
Production System		Dryland	Dryland	Dryland
1) INCOME				
Yield: Deterministic	T/HA	4.75	2.00	2.00
SAFEX SIMULATED PRICE: 2018 / PRODUCER PRICE	R/TON	R2 045	R5 221	R5 243
Total deductions	R/TON	R199	R59	R244
- Transport differential	R/TON	R136	R-	R151
- Grade differential	R/TON	R-	R-	R-
- Marketing & Handling	R/TON	R63	R59	R93
Price premiums	R/TON	R-	R-	R-
Net Farm Gate Price	R/TON	R1 846	R5 162	R4 999
GROSS INCOME	**R/HA**	**R8 768**	**R10 324**	**R9 997**
2) VARIABLE EXPENDITURES				
Contracting	R/HA	R-	R-	R-
Crop insurance	R/HA	R219	R1 136	R450
Fertilizer	R/HA	R2 165	R1 265	R1 336
Lime	R/HA	R425	R-	R-
Seed	R/HA	R970	R571	R478
Fuel	R/HA	R813	R757	R740
Herbicide	R/HA	R863	R584	R251
Insecticide	R/HA	R516	R221	R21
Fungicides	R/HA	R-	R-	R-
Marketing costs	R/HA	R-	R-	R-
Repairs and maintenance	R/HA	R679	R597	R624
Casual labour	R/HA	R208	R-	R133
Aerial spray	R/HA	R-	R-	R-
Other expenditure	R/HA	R-	R-	R-
TOTAL VARIABLE EXPENDITURE	**R/HA**	**R6 858**	**R5 131**	**R4 033**
TOTAL VARIABLE EXPENDITURE	**R/TON**	**R1 444**	**R2 565**	**R2 017**
3.1) GROSS MARGIN:	**R/HA**	**R1 910**	**R5 193**	**R5 964**
3.2) GROSS MARGIN:	**R/TON**	**R402**	**R2 597**	**R2 982**

Source: BFAP, GSA, NWK & Individual Farmers, 2017

Tel: 012 420 5021
Email: admin@bfap.co.za

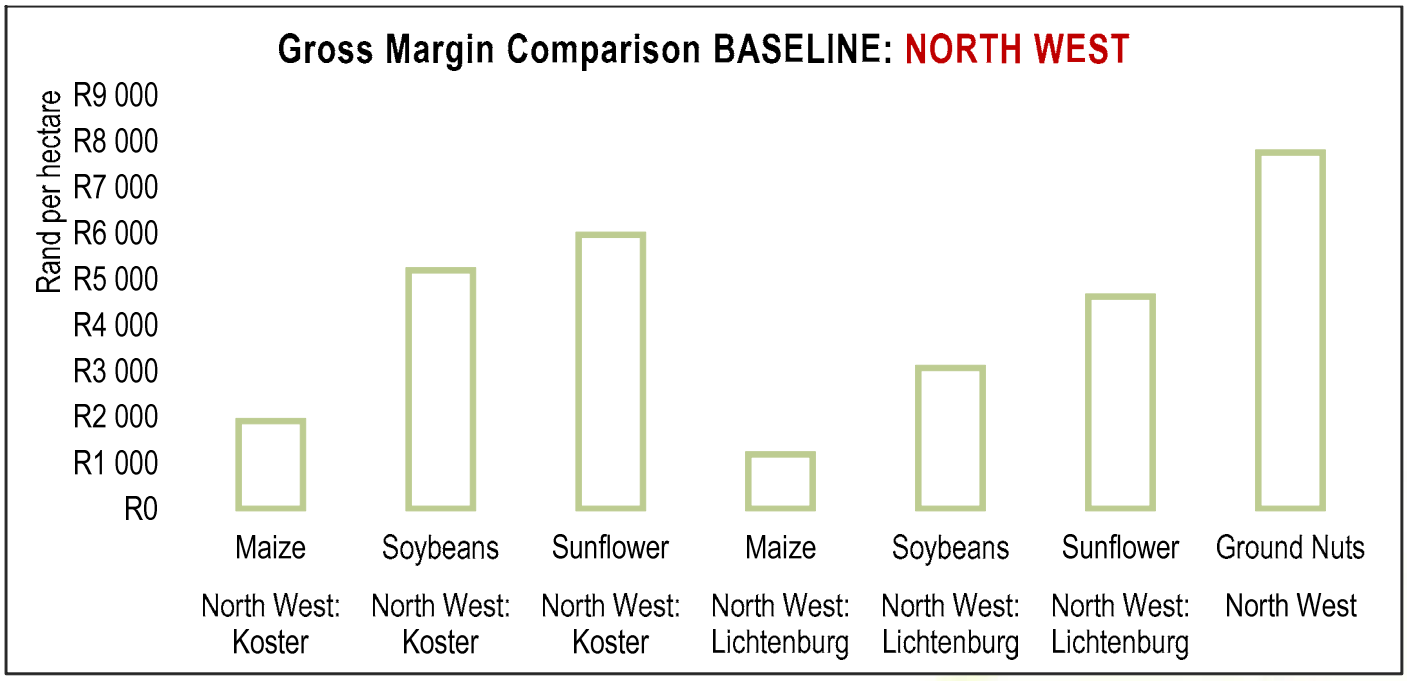

Figure 2.5: Gross margin comparison – Baseline: North West: Koster & Lichtenburg

SOYBEANS SENSITIVITY ANALYSIS (GROSS MARGIN PER HECTARE): NORTH WEST KOSTER

PRODUCERS YIELD (T/HA)													
PRICE	1.25		1.50		1.75		**2.00**		2.25		2.50		2.75
R4 250	R 182	R	1 244	R	2 307	**R**	**3 369**	R	4 432	R	5 494	R	6 557
R4 500	R 494	R	1 619	R	2 744	**R**	**3 869**	R	4 994	R	6 119	R	7 244
R4 750	R 807	R	1 994	R	3 182	**R**	**4 369**	R	5 557	R	6 744	R	7 932
R5 000	R 1 119	R	2 369	R	3 619	**R**	**4 869**	R	6 119	R	7 369	R	8 619
R5 162	**R 1 322**	**R**	**2 612**	**R**	**3 903**	**R**	**5 193**	**R**	**6 484**	**R**	**7 774**	**R**	**9 065**
R5 500	R 1 744	R	3 119	R	4 494	**R**	**5 869**	R	7 244	R	8 619	R	9 994
R5 750	R 2 057	R	3 494	R	4 932	**R**	**6 369**	R	7 807	R	9 244	R	10 682
R6 000	R 2 369	R	3 869	R	5 369	**R**	**6 869**	R	8 369	R	9 869	R	11 369
R6 250	R 2 682	R	4 244	R	5 807	**R**	**7 369**	R	8 932	R	10 494	R	12 057

SUNFLOWER SENSITIVITY ANALYSIS (GROSS MARGIN PER HECTARE): NORTH WEST KOSTER

PRODUCERS YIELD (T/HA)													
PRICE	1.25		1.50		1.75		**2.00**		2.25		2.50		2.75
R4 000	R 967	R	1 967	R	2 967	**R**	**3 967**	R	4 967	R	5 967	R	6 967
R4 250	R 1 279	R	2 342	R	3 404	**R**	**4 467**	R	5 529	R	6 592	R	7 654
R4 500	R 1 592	R	2 717	R	3 842	**R**	**4 967**	R	6 092	R	7 217	R	8 342
R4 750	R 1 904	R	3 092	R	4 279	**R**	**5 467**	R	6 654	R	7 842	R	9 029
R4 999	**R 2 215**	**R**	**3 464**	**R**	**4 714**	**R**	**5 964**	**R**	**7 213**	**R**	**8 463**	**R**	**9 713**
R5 250	R 2 529	R	3 842	R	5 154	**R**	**6 467**	R	7 779	R	9 092	R	10 404
R5 500	R 2 842	R	4 217	R	5 592	**R**	**6 967**	R	8 342	R	9 717	R	11 092
R5 750	R 3 154	R	4 592	R	6 029	**R**	**7 467**	R	8 904	R	10 342	R	11 779
R6 000	R 3 467	R	4 967	R	6 467	**R**	**7 967**	R	9 467	R	10 967	R	12 467

Tel: 012 420 5021
Email: admin@bfap.co.za

SOYBEANS MARGIN ABOVE / BELOW MAIZE (GROSS MARGIN PER HECTARE): NORTH WEST KOSTER												
YIELD	PRICE (R/TON)											
	R	4 500	R	4 750	R	5 000	**R**	**5 162**	R	5 500	R	5 750	R	6 000
0.50	-R	4 791	-R	4 666	-R	4 541	**-R**	**4 460**	-R	4 291	-R	4 166	-R	4 041
0.75	-R	3 666	-R	3 479	-R	3 291	**-R**	**3 170**	-R	2 916	-R	2 729	-R	2 541
1.00	-R	2 541	-R	2 291	-R	2 041	**-R**	**1 879**	-R	1 541	-R	1 291	-R	1 041
1.25	-R	1 416	-R	1 104	-R	791	**-R**	**589**	-R	166	R	146	R	459
2.00	**R**	**1 959**	**R**	**2 459**	**R**	**2 959**	**R**	**3 283**	**R**	**3 959**	**R**	**4 459**	**R**	**4 959**
1.75	R	834	R	1 271	R	1 709	**R**	**1 992**	R	2 584	R	3 021	R	3 459
2.00	R	1 959	R	2 459	R	2 959	**R**	**3 283**	R	3 959	R	4 459	R	4 959
2.25	R	3 084	R	3 646	R	4 209	**R**	**4 573**	R	5 334	R	5 896	R	6 459
2.50	R	4 209	R	4 834	R	5 459	**R**	**5 864**	R	6 709	R	7 334	R	7 959

Notes:

- The cost items reflect the input allocation based on the target yield for the respective crops.
- Although some expenditure items are zero, it is reflected in the budgets to allow for individual inclusion.
- The cost of fuel includes pre-harvest and harvesting costs with the assumption that own machinery is used.
- The cost for soybean seed reflects a combination of own- and purchased seed.
- There will be large fluctuations for insurance cost (hail) based on the associated risk in respective areas. It is advised that producers adjust this cost based on their individual premiums.
- It is important to note that overhead costs are not included and should be accounted for.

Tel: 012 420 5021
Email: admin@bfap.co.za

North West: Lichtenburg

Table 2.6: Income & cost budgets for maize, soybeans & sunflower for North West: Lichtenburg region - Dryland

Area		North West: Lichtenburg			
Crop		Maize	Soybeans	Sunflower	Ground Nuts
Production System		Dryland	Dryland	Dryland	Dryland
1) INCOME					
Yield: Deterministic	T/HA	4.25	1.50	1.70	1.50
SAFEX SIMULATED PRICE: 2018 / PRODUCER PRICE	R/TON	R2 045	R5 221	R5 243	R10 140
Total deductions	R/TON	R249	R60	R289	R63
- Transport differential	R/TON	R186	R-	R196	R-
- Grade differential	R/TON	R-	R-	R-	R-
- Marketing & Handling	R/TON	R63	R60	R93	R63
Price premiums	R/TON	R-	R-	R-	R-
Net Farm Gate Price	R/TON	R1 796	R5 161	R4 954	R10 077
GROSS INCOME	**R/HA**	R7 633	R7 741	R8 421	R16 466
2) VARIABLE EXPENDITURES					
Contracting	R/HA	R-	R-	R-	R-
Crop insurance	R/HA	R191	R852	R379	R412
Fertilizer	R/HA	R1 944	R1 115	R1 196	R1 531
Lime	R/HA	R425	R-	R-	R335
Seed	R/HA	R873	R571	R468	R1 465
Fuel	R/HA	R799	R738	R731	R683
Herbicide	R/HA	R987	R584	R251	R751
Insecticide	R/HA	R344	R221	R21	R530
Fungicides	R/HA	R-	R-	R-	R-
Marketing costs	R/HA	R-	R-	R-	R-
Repairs and maintenance	R/HA	R675	R594	R622	R696
Casual labour	R/HA	R208	R-	R133	R1 807
Aerial spray	R/HA	R-	R-	R-	R-
Other expenditure	R/HA	R-	R-	R-	R500
TOTAL VARIABLE EXPENDITURE	**R/HA**	R6 446	R4 675	R3 801	R8 710
TOTAL VARIABLE EXPENDITURE	**R/TON**	R1 517	R3 117	R2 236	R5 806
3.1) GROSS MARGIN:	**R/HA**	R1 187	R3 067	R4 620	R7 756
3.2) GROSS MARGIN:	**R/TON**	R279	R2 044	R2 718	R5 171

Source: BFAP, GSA, NWK & Individual Farmers, 2017

Tel: 012 420 5021
Email: admin@bfap.co.za

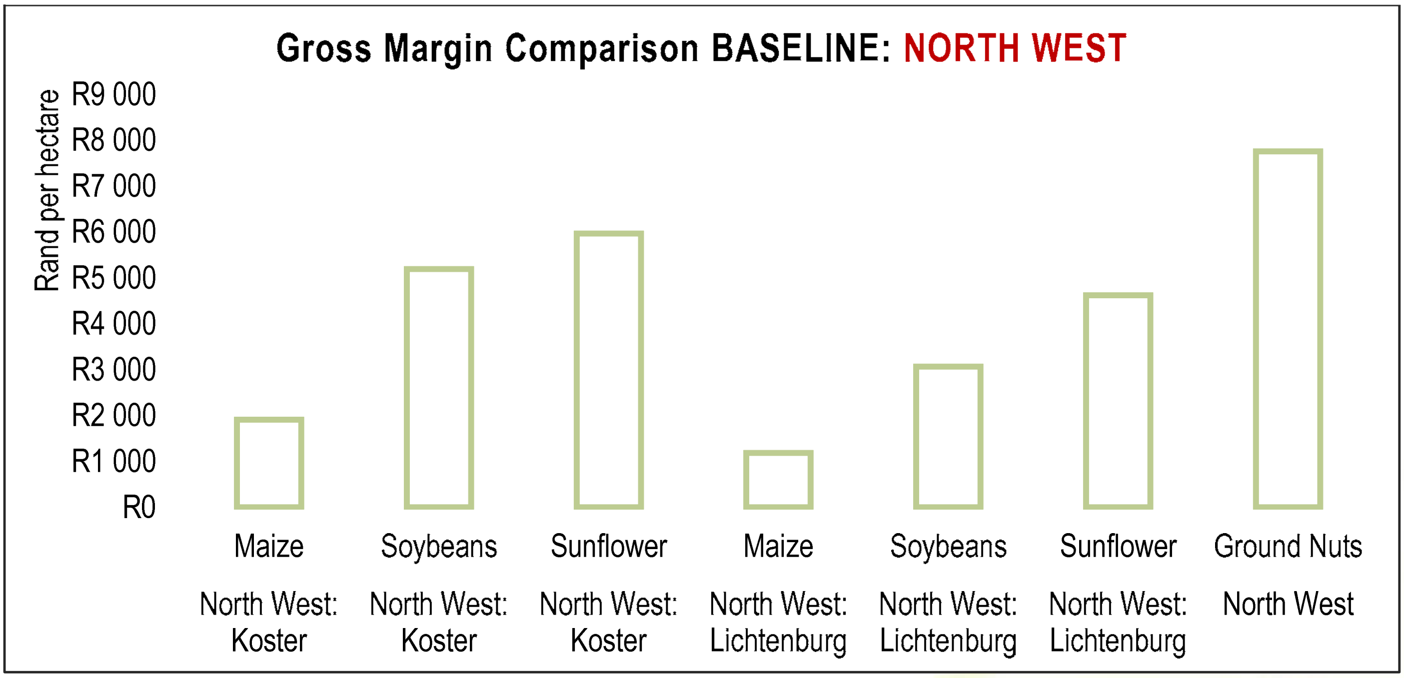

Figure 2.6: Gross margin comparison – Baseline: North West: Koster & Lichtenburg

SOYBEANS SENSITIVITY ANALYSIS (GROSS MARGIN PER HECTARE): NORTH WEST LICHTENBURG

PRODUCERS YIELD (T/HA)							
PRICE	0.75	1.00	1.25	**1.50**	1.75	2.00	2.25
R4 250	-R 1 487	-R 425	R 638	**R 1 700**	R 2 763	R 3 825	R 4 888
R4 500	-R 1 300	-R 175	R 950	**R 2 075**	R 3 200	R 4 325	R 5 450
R4 750	-R 1 112	R 75	R 1 263	**R 2 450**	R 3 638	R 4 825	R 6 013
R5 000	-R 925	R 325	R 1 575	**R 2 825**	R 4 075	R 5 325	R 6 575
R5 161	**-R 804**	**R 486**	**R 1 776**	**R 3 067**	**R 4 357**	**R 5 647**	**R 6 937**
R5 500	-R 550	R 825	R 2 200	**R 3 575**	R 4 950	R 6 325	R 7 700
R5 750	-R 362	R 1 075	R 2 513	**R 3 950**	R 5 388	R 6 825	R 8 263
R6 000	-R 175	R 1 325	R 2 825	**R 4 325**	R 5 825	R 7 325	R 8 825
R6 250	R 13	R 1 575	R 3 138	**R 4 700**	R 6 263	R 7 825	R 9 388

SUNFLOWER SENSITIVITY ANALYSIS (GROSS MARGIN PER HECTARE): NORTH WEST LICHTENBURG

PRODUCERS YIELD (T/HA)							
PRICE	1.00	1.25	1.50	**1.70**	2.00	2.25	2.50
R4 000	R 199	R 1 199	R 2 199	**R 2 999**	R 4 199	R 5 199	R 6 199
R4 250	R 449	R 1 511	R 2 574	**R 3 424**	R 4 699	R 5 761	R 6 824
R4 500	R 699	R 1 824	R 2 949	**R 3 849**	R 5 199	R 6 324	R 7 449
R4 750	R 949	R 2 136	R 3 324	**R 4 274**	R 5 699	R 6 886	R 8 074
R4 954	**R 1 153**	**R 2 391**	**R 3 629**	**R 4 620**	**R 6 106**	**R 7 345**	**R 8 583**
R5 250	R 1 449	R 2 761	R 4 074	**R 5 124**	R 6 699	R 8 011	R 9 324
R5 500	R 1 699	R 3 074	R 4 449	**R 5 549**	R 7 199	R 8 574	R 9 949
R5 750	R 1 949	R 3 386	R 4 824	**R 5 974**	R 7 699	R 9 136	R 10 574
R6 000	R 2 199	R 3 699	R 5 199	**R 6 399**	R 8 199	R 9 699	R 11 199

Tel: 012 420 5021
Email: admin@bfap.co.za

GROUND NUTS SENSITIVITY ANALYSIS (GROSS MARGIN PER HECTARE): NORTH WEST														
PRODUCERS YIELD (T/HA)														
PRICE	0.75		1.00		1.25		**1.50**		1.75		2.00		2.25	
R8 000	-R	2 035	R	190	R	2 415	**R**	**4 640**	R	6 865	R	9 090	R	11 315
R8 500	-R	1 660	R	690	R	3 040	**R**	**5 390**	R	7 740	R	10 090	R	12 440
R9 000	-R	1 285	R	1 190	R	3 665	**R**	**6 140**	R	8 615	R	11 090	R	13 565
R9 500	-R	910	R	1 690	R	4 290	**R**	**6 890**	R	9 490	R	12 090	R	14 690
R10 077	**-R**	**477**	**R**	**2 268**	**R**	**5 012**	**R**	**7 756**	**R**	**10 501**	**R**	**13 245**	**R**	**15 989**
R10 500	-R	160	R	2 690	R	5 540	**R**	**8 390**	R	11 240	R	14 090	R	16 940
R11 000	R	215	R	3 190	R	6 165	**R**	**9 140**	R	12 115	R	15 090	R	18 065
R11 500	R	590	R	3 690	R	6 790	**R**	**9 890**	R	12 990	R	16 090	R	19 190
R12 000	R	965	R	4 190	R	7 415	**R**	**10 640**	R	13 865	R	17 090	R	20 315

SOYBEANS MARGIN ABOVE / BELOW MAIZE (GROSS MARGIN PER HECTARE): NORTH WEST LICHTENBURG														
YIELD PRICE (R/TON)														
	R	4 500	R	4 750	R	5 000	**R**	**5 161**	R	5 500	R	5 750	R	6 000
0.50	-R	3 612	-R	3 487	-R	3 362	**-R**	**3 281**	-R	3 112	-R	2 987	-R	2 862
0.75	-R	2 487	-R	2 299	-R	2 112	**-R**	**1 991**	-R	1 737	-R	1 549	-R	1 362
1.00	-R	1 362	-R	1 112	-R	862	**-R**	**701**	-R	362	-R	112	R	138
1.25	-R	237	R	76	R	388	**R**	**589**	R	1 013	R	1 326	R	1 638
1.50	**R**	**888**	**R**	**1 263**	**R**	**1 638**	**R**	**1 880**	**R**	**2 388**	**R**	**2 763**	**R**	**3 138**
1.75	R	2 013	R	2 451	R	2 888	**R**	**3 170**	R	3 763	R	4 201	R	4 638
2.00	R	3 138	R	3 638	R	4 138	**R**	**4 460**	R	5 138	R	5 638	R	6 138
2.25	R	4 263	R	4 826	R	5 388	**R**	**5 750**	R	6 513	R	7 076	R	7 638
2.50	R	5 388	R	6 013	R	6 638	**R**	**7 041**	R	7 888	R	8 513	R	9 138

Notes:

- The cost items reflect the input allocation based on the target yield for the respective crops.
- Although some expenditure items are zero, it is reflected in the budgets to allow for individual inclusion.
- The cost of fuel includes pre-harvest and harvesting costs with the assumption that own machinery is used.
- The cost for soybean seed reflects a combination of own- and purchased seed.
- There will be large fluctuations for insurance cost (hail) based on the associated risk in respective areas. It is advised that producers adjust this cost based on their individual premiums.
- It is important to note that overhead costs are not included and should be accounted for.

Tel: 012 420 5021
Email: admin@bfap.co.za

Northern Cape

Table 3.1: Income & cost budgets for maize, soybeans, ground nuts & sunflower (oil) for Northern Cape - Irrigation

Area		Northern Cape: Irrigation			
Crop		Maize	Soybeans	Ground Nuts	Sunflower (oil)
Production System		Irrigation	Irrigation	Irrigation	Irrigation
1) INCOME					
Yield: Deterministic	T/HA	13.50	4.00	3.00	3.00
SAFEX SIMULATED PRICE: 2018 / PRODUCER PRICE	R/TON	R2 208	R5 221	R12 380	R5 243
Total deductions	R/TON	R331	R59	R-	R-
- Transport differential	R/TON	R268	R-	R-	R-
- Grade differential	R/TON	R-	R-	R-	R-
- Marketing & Handling	R/TON	R63	R59	R-	R-
Price premiums	R/TON	R-	R-	R-	R-
Net Farm Gate Price	R/TON	R1 877	R5 162	R12 380	R5 243
GROSS INCOME	**R/HA**	**R25 340**	**R20 648**	**R39 840**	**R15 728**
2) VARIABLE EXPENDITURES					
Contracting	R/HA	R-	R-	R3 900	R800
Crop insurance	R/HA	R405	R1 404	R1 713	R587
Fertilizer	R/HA	R9 387	R5 678	R7 077	R5 301
Lime	R/HA	R-	R-	R470	R-
Seed	R/HA	R4 365	R1 834	R2 182	R1 063
Fuel	R/HA	R946	R370	R756	R760
Herbicide	R/HA	R216	R440	R285	R149
Insecticide	R/HA	R2 602	R1 493	R3 661	R103
Fungicides	R/HA	R-	R-	R-	R-
Marketing costs	R/HA	R-	R-	R-	R-
Repairs and maintenance	R/HA	R585	R354	R631	R613
Casual labour	R/HA	R-	R-	R139	R-
Aerial spray	R/HA	R350	R-	R-	R-
Irrigation Electricity	R/HA	R2 884	R2 884	R2 592	R2 048
Water	R/HA	R863	R863	R775	R613
Other expenditure: Scheduling / Irrigation Equipment R&M	R/HA	R472	R472	R2 072	R472
TOTAL VARIABLE EXPENDITURE	**R/HA**	**R23 075**	**R15 792**	**R26 252**	**R12 508**
TOTAL VARIABLE EXPENDITURE	**R/TON**	**R1 709**	**R3 948**	**R8 751**	**R4 169**
3.1) GROSS MARGIN:	**R/HA**	**R2 265**	**R4 855**	**R13 588**	**R3 219**
3.2) GROSS MARGIN:	**R/TON**	**R168**	**R1 214**	**R4 529**	**R1 073**

Source: BFAP, GSA & GWK, 2017

Tel: 012 420 5021
Email: admin@bfap.co.za

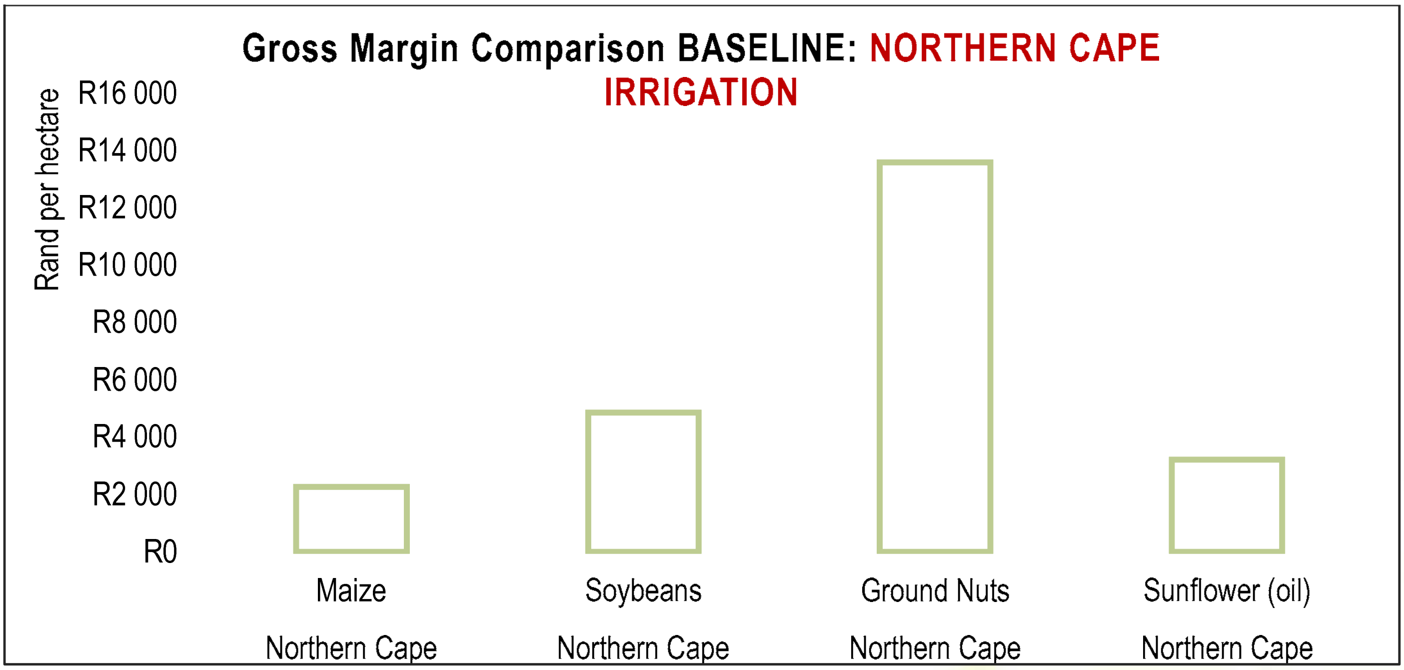

Figure 3.1: Gross margin comparison – Baseline: Northern Cape Irrigation

SOYBEANS SENSITIVITY ANALYSIS (GROSS MARGIN PER HECTARE): NORTHERN CAPE IRRIGATION

PRODUCERS YIELD (T/HA)							
PRICE	3.25	3.50	3.75	**4.00**	4.25	4.50	4.75
R4 250	-R 1 980	-R 917	R 145	**R 1 208**	R 2 270	R 3 333	R 4 395
R4 500	-R 1 167	-R 42	R 1 083	**R 2 208**	R 3 333	R 4 458	R 5 583
R4 750	-R 355	R 833	R 2 020	**R 3 208**	R 4 395	R 5 583	R 6 770
R5 000	R 458	R 1 708	R 2 958	**R 4 208**	R 5 458	R 6 708	R 7 958
R5 162	**R 984**	**R 2 274**	**R 3 565**	**R 4 855**	**R 6 146**	**R 7 436**	**R 8 727**
R5 500	R 2 083	R 3 458	R 4 833	**R 6 208**	R 7 583	R 8 958	R 10 333
R5 750	R 2 895	R 4 333	R 5 770	**R 7 208**	R 8 645	R 10 083	R 11 520
R6 000	R 3 708	R 5 208	R 6 708	**R 8 208**	R 9 708	R 11 208	R 12 708
R6 250	R 4 520	R 6 083	R 7 645	**R 9 208**	R 10 770	R 12 333	R 13 895

GROUND NUTS SENSITIVITY ANALYSIS (GROSS MARGIN PER HECTARE): NORTHERN CAPE IRRIGATION

PRODUCERS YIELD (T/HA)							
PRICE	2.25	2.50	2.75	**3.00**	3.25	3.50	3.75
R10 500	-R 602	R 2 248	R 5 098	**R 7 948**	R 10 798	R 13 648	R 16 498
R11 000	R 523	R 3 498	R 6 473	**R 9 448**	R 12 423	R 15 398	R 18 373
R11 500	R 1 648	R 4 748	R 7 848	**R 10 948**	R 14 048	R 17 148	R 20 248
R12 000	R 2 773	R 5 998	R 9 223	**R 12 448**	R 15 673	R 18 898	R 22 123
R12 380	**R 3 628**	**R 6 948**	**R 10 268**	**R 13 588**	**R 16 908**	**R 20 228**	**R 23 548**
R13 000	R 5 023	R 8 498	R 11 973	**R 15 448**	R 18 923	R 22 398	R 25 873
R13 500	R 6 148	R 9 748	R 13 348	**R 16 948**	R 20 548	R 24 148	R 27 748
R14 000	R 7 273	R 10 998	R 14 723	**R 18 448**	R 22 173	R 25 898	R 29 623
R14 500	R 8 398	R 12 248	R 16 098	**R 19 948**	R 23 798	R 27 648	R 31 498

Tel: 012 420 5021
Email: admin@bfap.co.za

SUNFLOWER OIL SENSITIVITY ANALYSIS (GROSS MARGIN PER HECTARE): NORTHERN CAPE IRRIGATION														
PRODUCERS YIELD (T/HA)														
PRICE	2.00		2.50		2.75		**3.00**		3.25		3.50		3.75	
R4 250	-R	4 008	-R	1 883	-R	821	**R**	**242**	R	1 304	R	2 367	R	3 429
R4 500	-R	3 508	-R	1 258	-R	133	**R**	**992**	R	2 117	R	3 242	R	4 367
R4 750	-R	3 008	-R	633	R	554	**R**	**1 742**	R	2 929	R	4 117	R	5 304
R5 000	-R	2 508	-R	8	R	1 242	**R**	**2 492**	R	3 742	R	4 992	R	6 242
R5 243	**-R**	**2 023**	**R**	**598**	**R**	**1 909**	**R**	**3 219**	**R**	**4 530**	**R**	**5 841**	**R**	**7 151**
R5 500	-R	1 508	R	1 242	R	2 617	**R**	**3 992**	R	5 367	R	6 742	R	8 117
R5 750	-R	1 008	R	1 867	R	3 304	**R**	**4 742**	R	6 179	R	7 617	R	9 054
R6 000	-R	508	R	2 492	R	3 992	**R**	**5 492**	R	6 992	R	8 492	R	9 992
R6 250	-R	8	R	3 117	R	4 679	**R**	**6 242**	R	7 804	R	9 367	R	10 929

SOYBEANS MARGIN ABOVE / BELOW MAIZE (GROSS MARGIN PER HECTARE): NORTHERN CAPE IRRIGATION														
YIELD PRICE (R/TON)														
	R	4 250	R	4 500	R	4 750	**R**	**5 162**	R	5 500	R	5 750	R	6 000
3.00	-R	5 308	-R	4 558	-R	3 808	**-R**	**2 572**	-R	1 558	-R	808	-R	58
3.25	-R	4 245	-R	3 433	-R	2 620	**-R**	**1 281**	-R	183	R	630	R	1 442
3.50	-R	3 183	-R	2 308	-R	1 433	**R**	**9**	R	1 192	R	2 067	R	2 942
3.75	-R	2 120	-R	1 183	-R	245	**R**	**1 300**	R	2 567	R	3 505	R	4 442
4.00	**-R**	**1 058**	**-R**	**58**	**R**	**942**	**R**	**2 590**	**R**	**3 942**	**R**	**4 942**	**R**	**5 942**
4.25	R	5	R	1 067	R	2 130	**R**	**3 881**	R	5 317	R	6 380	R	7 442
4.50	R	1 067	R	2 192	R	3 317	**R**	**5 171**	R	6 692	R	7 817	R	8 942
4.75	R	2 130	R	3 317	R	4 505	**R**	**6 462**	R	8 067	R	9 255	R	10 442
5.00	R	3 192	R	4 442	R	5 692	**R**	**7 752**	R	9 442	R	10 692	R	11 942

Notes:

- The cost items reflect the input allocation based on the target yield for the respective crops.
- Although some expenditure items are zero, it is reflected in the budgets to allow for individual inclusion.
- The cost of fuel includes pre-harvest and harvesting costs with the assumption that own machinery is used.
- The cost for soybean seed reflects a combination of own- and purchased seed.
- There will be large fluctuations for insurance cost (hail) based on the associated risk in respective areas. It is advised that producers adjust this cost based on their individual premiums.
- It is important to note that overhead costs are not included and should be accounted for.

Tel: 012 420 5021
Email: admin@bfap.co.za

KwaZulu-Natal: Bergville

Table 3.2: Income & cost budgets for maize & soybeans for KwaZulu-Natal: Bergrivier - Irrigation

Area		KwaZulu-Natal: Bergrivier	
Crop		Maize	Soybeans
Production System		Irrigation	Irrigation
1) INCOME			
Yield: Deterministic	T/HA	12.00	4.00
SAFEX SIMULATED PRICE: 2018 / PRODUCER PRICE	R/TON	R2 208	R5 221
Total deductions	R/TON	R357	R59
- Transport differential	R/TON	R297	R-
- Grade differential	R/TON	R-	R-
- Marketing & Handling	R/TON	R60	R59
Price premiums	R/TON	R-	R-
Net Farm Gate Price	R/TON	R1 851	R5 162
GROSS INCOME	**R/HA**	**R22 212**	**R20 648**
2) VARIABLE EXPENDITURES			
Contracting	R/HA	R-	R-
Crop insurance	R/HA	R844	R2 519
Fertilizer	R/HA	R6 178	R2 968
Lime	R/HA	R425	R-
Seed	R/HA	R3 880	R1 834
Fuel	R/HA	R990	R370
Herbicide	R/HA	R1 236	R857
Insecticide	R/HA	R232	R225
Fungicides	R/HA	R-	R-
Marketing costs	R/HA	R-	R-
Repairs and maintenance	R/HA	R631	R354
Casual labour	R/HA	R-	R-
Aerial spray	R/HA	R-	R-
Irrigation Electricity	R/HA	R3 144	R2 572
Water	R/HA	R278	R228
Other expenditure: Scheduling / Irrigation Equipment R&M	R/HA	R360	R-
TOTAL VARIABLE EXPENDITURE	**R/HA**	**R18 198**	**R11 927**
TOTAL VARIABLE EXPENDITURE	**R/TON**	**R1 516**	**R2 982**
3.1) GROSS MARGIN:	**R/HA**	**R4 015**	**R8 721**
3.2) GROSS MARGIN:	**R/TON**	**R335**	**R2 180**

Source: BFAP, GSA & Individual Farmers, 2017

Tel: 012 420 5021
Email: admin@bfap.co.za

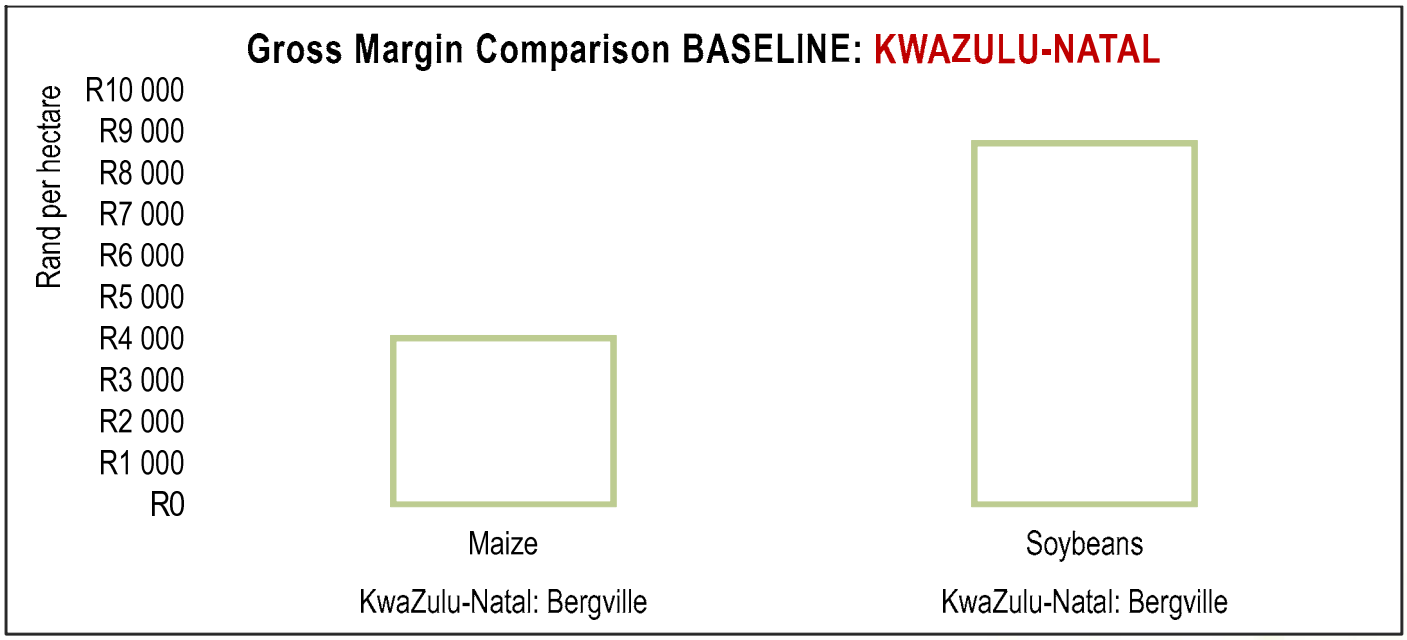

Figure 3.2: Gross margin comparison – Baseline: KwaZulu-Natal: Bergrivier

SOYBEANS SENSITIVITY ANALYSIS (GROSS MARGIN PER HECTARE): KWAZULU-NATAL:BERGVILLE

PRODUCERS YIELD (T/HA) PRICE	3.25	3.50	3.75	**4.00**	4.25	4.50	4.75
R4 250	R 1 885	R 2 948	R 4 010	**R 5 073**	R 6 135	R 7 198	R 8 260
R4 500	R 2 698	R 3 823	R 4 948	**R 6 073**	R 7 198	R 8 323	R 9 448
R4 750	R 3 510	R 4 698	R 5 885	**R 7 073**	R 8 260	R 9 448	R 10 635
R5 000	R 4 323	R 5 573	R 6 823	**R 8 073**	R 9 323	R 10 573	R 11 823
R5 162	**R 4 849**	**R 6 140**	**R 7 430**	**R 8 721**	**R 10 011**	**R 11 302**	**R 12 592**
R5 500	R 5 948	R 7 323	R 8 698	**R 10 073**	R 11 448	R 12 823	R 14 198
R5 750	R 6 760	R 8 198	R 9 635	**R 11 073**	R 12 510	R 13 948	R 15 385
R6 000	R 7 573	R 9 073	R 10 573	**R 12 073**	R 13 573	R 15 073	R 16 573
R6 250	R 8 385	R 9 948	R 11 510	**R 13 073**	R 14 635	R 16 198	R 17 760

SOYBEANS MARGIN ABOVE / BELOW MAIZE (GROSS MARGIN PER HECTARE): KWAZULU-NATAL:BERGVILLE

YIELD PRICE (R/TON)	R 4 500	R 4 750	R 5 000	**R 5 162**	R 5 500	R 5 750	R 6 000
3.00	-R 2 442	-R 1 692	-R 942	**-R 456**	R 558	R 1 308	R 2 058
3.25	-R 1 317	-R 505	R 308	**R 834**	R 1 933	R 2 745	R 3 558
3.50	-R 192	R 683	R 1 558	**R 2 125**	R 3 308	R 4 183	R 5 058
3.75	R 933	R 1 870	R 2 808	**R 3 415**	R 4 683	R 5 620	R 6 558
4.00	**R 2 058**	**R 3 058**	**R 4 058**	**R 4 706**	**R 6 058**	**R 7 058**	**R 8 058**
4.25	R 3 183	R 4 245	R 5 308	**R 5 996**	R 7 433	R 8 495	R 9 558
4.50	R 4 308	R 5 433	R 6 558	**R 7 287**	R 8 808	R 9 933	R 11 058
4.75	R 5 433	R 6 620	R 7 808	**R 8 577**	R 10 183	R 11 370	R 12 558
5.00	R 6 558	R 7 808	R 9 058	**R 9 868**	R 11 558	R 12 808	R 14 058

Notes:

- The cost items reflect the input allocation based on the target yield for the respective crops.
- Although some expenditure items are zero, it is reflected in the budgets to allow for individual inclusion.
- The cost of fuel includes pre-harvest and harvesting costs with the assumption that own machinery is used.
- The cost for soybean seed reflects a combination of own- and purchased seed.
- There will be large fluctuations for insurance cost (hail) based on the associated risk in respective areas. It is advised that producers adjust this cost based on their individual premiums.
- It is important to note that overhead costs are not included and should be accounted for.

Tel: 012 420 5021
Email: admin@bfap.co.za

North-West

Table 3.3: Income & cost budgets for maize, soybeans, sunflower & sorghum for North West: Brits region - Irrigation

Area		North West: Brits / Northam / Koedoeskop			
Crop		Maize	Soybeans	Sunflower	Sorghum
Production System		Irrigation	Irrigation	Irrigation	Irrigation
1) INCOME					
Yield: Deterministic	T/HA	12.00	3.80	3.00	7.00
SAFEX SIMULATED PRICE: 2018 / PRODUCER PRICE	R/TON	R2 208	R5 221	R5 243	R2 911
Total deductions	R/TON	R190	R59	R238	R63
- Transport differential	R/TON	R127	R-	R145	R-
- Grade differential	R/TON	R-	R-	R-	R-
- Marketing & Handling	R/TON	R63	R59	R93	R63
Price premiums	R/TON	R-	R-	R-	R-
Net Farm Gate Price	R/TON	R2 018	R5 162	R5 005	R2 848
GROSS INCOME	**R/HA**	**R24 216**	**R19 616**	**R15 014**	**R19 934**
2) VARIABLE EXPENDITURES					
Contracting	R/HA	R-	R-	R-	R-
Crop insurance	R/HA	R1 453	R981	R300	R498
Fertilizer	R/HA	R6 698	R2 115	R1 847	R3 557
Lime	R/HA	R425	R425	R-	R425
Seed	R/HA	R3 880	R1 834	R820	R618
Fuel	R/HA	R990	R743	R776	R788
Herbicide	R/HA	R353	R857	R772	R741
Insecticide	R/HA	R78	R225	R33	R157
Fungicides	R/HA	R-	R-	R-	R-
Marketing costs	R/HA	R-	R-	R-	R-
Repairs and maintenance	R/HA	R689	R609	R547	R572
Casual labour	R/HA	R-	R-	R-	R120
Aerial spray	R/HA	R-	R-	R200	R200
Irrigation Electricity	R/HA	R3 772	R2 572	R1 143	R1 715
Water	R/HA	R334	R228	R101	R152
Other expenditure: Scheduling / Irrigation Equipment R&M	R/HA	R370	R370	R370	R370
TOTAL VARIABLE EXPENDITURE	**R/HA**	**R19 042**	**R10 959**	**R6 911**	**R9 912**
TOTAL VARIABLE EXPENDITURE	**R/TON**	**R1 587**	**R2 884**	**R2 304**	**R1 416**
3.1) GROSS MARGIN:	**R/HA**	**R5 175**	**R8 657**	**R8 103**	**R10 021**
3.2) GROSS MARGIN:	**R/TON**	**R431**	**R2 278**	**R2 701**	**R1 432**

Source: BFAP, GSA, NWK & Individual Farmers, 2017

Tel: 012 420 5021
Email: admin@bfap.co.za

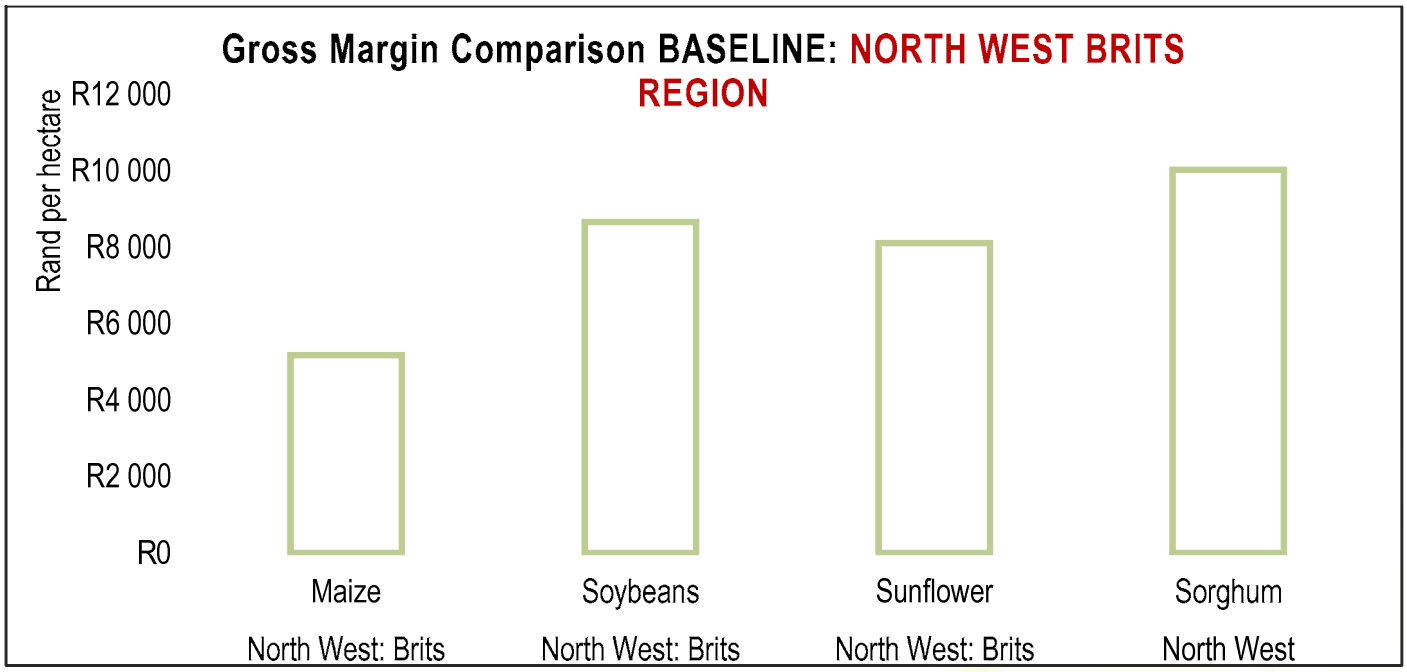

Figure 3.3: Gross margin comparison – Baseline: North West: Brits Region

SOYBEANS SENSITIVITY ANALYSIS (GROSS MARGIN PER HECTARE): NORTH WEST BRITZ

	YIELD (T/HA)													
PRODUCERS PRICE	3.00		3.25		3.50		**3.80**		4.00		4.25		4.50	
R4 250	R	1 791	R	2 854	R	3 916	**R**	**5 191**	R	6 041	R	7 104	R	8 166
R4 500	R	2 541	R	3 666	R	4 791	**R**	**6 141**	R	7 041	R	8 166	R	9 291
R4 750	R	3 291	R	4 479	R	5 666	**R**	**7 091**	R	8 041	R	9 229	R	10 416
R5 000	R	4 041	R	5 291	R	6 541	**R**	**8 041**	R	9 041	R	10 291	R	11 541
R5 162	**R**	**4 527**	**R**	**5 818**	**R**	**7 108**	**R**	**8 657**	**R**	**9 689**	**R**	**10 980**	**R**	**12 270**
R5 500	R	5 541	R	6 916	R	8 291	**R**	**9 941**	R	11 041	R	12 416	R	13 791
R5 750	R	6 291	R	7 729	R	9 166	**R**	**10 891**	R	12 041	R	13 479	R	14 916
R6 000	R	7 041	R	8 541	R	10 041	**R**	**11 841**	R	13 041	R	14 541	R	16 041
R6 250	R	7 791	R	9 354	R	10 916	**R**	**12 791**	R	14 041	R	15 604	R	17 166

SUNFLOWER SENSITIVITY ANALYSIS (GROSS MARGIN PER HECTARE): NORTH WEST BRITZ

	YIELD (T/HA)													
PRODUCERS PRICE	2.25		2.50		2.75		**3.00**		3.25		3.50		3.75	
R4 000	R	2 089	R	3 089	R	4 089	**R**	**5 089**	R	6 089	R	7 089	R	8 089
R4 250	R	2 652	R	3 714	R	4 777	**R**	**5 839**	R	6 902	R	7 964	R	9 027
R4 500	R	3 214	R	4 339	R	5 464	**R**	**6 589**	R	7 714	R	8 839	R	9 964
R4 750	R	3 777	R	4 964	R	6 152	**R**	**7 339**	R	8 527	R	9 714	R	10 902
R5 005	**R**	**4 350**	**R**	**5 601**	**R**	**6 852**	**R**	**8 103**	**R**	**9 354**	**R**	**10 605**	**R**	**11 856**
R5 250	R	4 902	R	6 214	R	7 527	**R**	**8 839**	R	10 152	R	11 464	R	12 777
R5 500	R	5 464	R	6 839	R	8 214	**R**	**9 589**	R	10 964	R	12 339	R	13 714
R5 750	R	6 027	R	7 464	R	8 902	**R**	**10 339**	R	11 777	R	13 214	R	14 652
R6 000	R	6 589	R	8 089	R	9 589	**R**	**11 089**	R	12 589	R	14 089	R	15 589

Tel: 012 420 5021
Email: admin@bfap.co.za

SOYBEANS MARGIN ABOVE / BELOW MAIZE (GROSS MARGIN PER HECTARE): NORTH WEST BRITZ												
YIELD PRICE (R/TON)												
	R	4 500	**R**	**4 750**	R	5 000	**R**	**5 162**	R	5 500	R	5 750	R	6 000
2.75	-R	3 759	-R	3 071	-R	2 384	**-R**	**1 938**	-R	1 009	-R	321	R	366
3.00	-R	2 634	-R	1 884	-R	1 134	**-R**	**648**	R	366	R	1 116	R	1 866
3.25	-R	1 509	-R	696	R	116	**R**	**643**	R	1 741	R	2 554	R	3 366
3.50	-R	384	R	491	R	1 366	**R**	**1 933**	R	3 116	R	3 991	R	4 866
3.80	**R**	**966**	**R**	**1 916**	**R**	**2 866**	**R**	**3 482**	**R**	**4 766**	**R**	**5 716**	**R**	**6 666**
4.00	R	1 866	R	2 866	R	3 866	**R**	**4 514**	R	5 866	R	6 866	R	7 866
4.25	R	2 991	R	4 054	R	5 116	**R**	**5 805**	R	7 241	R	8 304	R	9 366
4.50	R	4 116	R	5 241	R	6 366	**R**	**7 095**	R	8 616	R	9 741	R	10 866
4.75	R	5 241	R	6 429	R	7 616	**R**	**8 386**	R	9 991	R	11 179	R	12 366

Notes:

- The cost items reflect the input allocation based on the target yield for the respective crops.
- Although some expenditure items are zero, it is reflected in the budgets to allow for individual inclusion.
- The cost of fuel includes pre-harvest and harvesting costs with the assumption that own machinery is used.
- The cost for soybean seed reflects a combination of own- and purchased seed.
- There will be large fluctuations for insurance cost (hail) based on the associated risk in respective areas. It is advised that producers adjust this cost based on their individual premiums.
- It is important to note that overhead costs are not included and should be accounted for.

Tel: 012 420 5021
Email: admin@bfap.co.za

Limpopo

Table 3.4: Income & cost budgets for maize & soybeans for Limpopo: Loskop region - Irrigation

Area		Limpopo: Loskop	
Crop		Maize	Soybeans
Production System		Irrigation	Irrigation
1) INCOME			
Yield: Deterministic	T/HA	12.00	4.00
SAFEX SIMULATED PRICE: 2018 / PRODUCER PRICE	R/TON	R2 208	R5 221
Total deductions	R/TON	R308	R59
- Transport differential	R/TON	R245	R-
- Grade differential	R/TON	R-	R-
- Marketing & Handling	R/TON	R63	R59
Price premiums	R/TON	R-	R-
Net Farm Gate Price	R/TON	R1 900	R5 162
GROSS INCOME	**R/HA**	**R22 800**	**R20 648**
2) VARIABLE EXPENDITURES			
Contracting	R/HA	R-	R-
Crop insurance	R/HA	R1 368	R950
Fertilizer	R/HA	R6 098	R2 228
Lime	R/HA	R425	R-
Seed	R/HA	R4 110	R1 834
Fuel	R/HA	R990	R757
Herbicide	R/HA	R353	R857
Insecticide	R/HA	R78	R225
Fungicides	R/HA	R-	R-
Marketing costs	R/HA	R-	R-
Repairs and maintenance	R/HA	R689	R631
Casual labour	R/HA	R-	R-
Aerial spray	R/HA	R-	R-
Irrigation Electricity	R/HA	R3 772	R2 572
Water	R/HA	R334	R228
Other expenditure: Scheduling / Irrigation Equipment R&M	R/HA	R370	R370
TOTAL VARIABLE EXPENDITURE	**R/HA**	**R18 587**	**R10 652**
TOTAL VARIABLE EXPENDITURE	**R/TON**	**R1 549**	**R2 663**
3.1) GROSS MARGIN:	**R/HA**	**R4 214**	**R9 996**
3.2) GROSS MARGIN:	**R/TON**	**R351**	**R2 499**

Source: BFAP, GSA & Individual Farmers, 2017

Tel: 012 420 5021
Email: admin@bfap.co.za

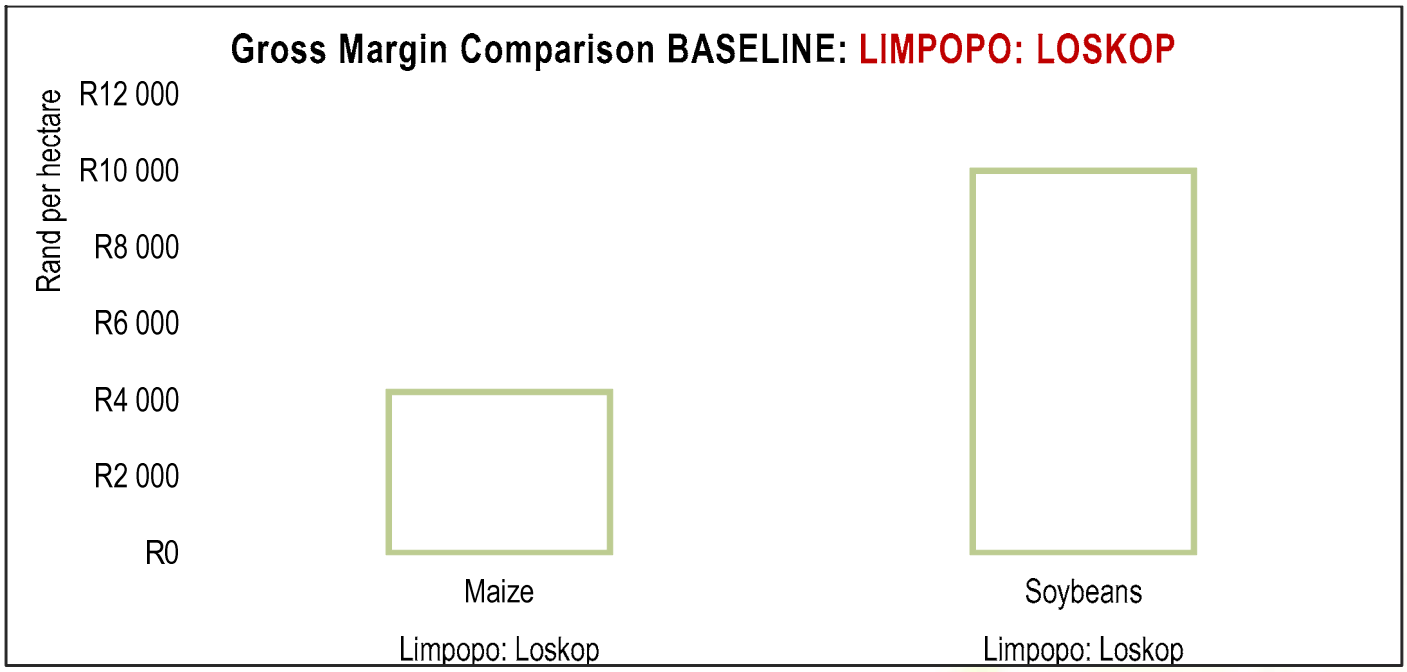

Figure 3.4: Gross margin comparison – Baseline: Limpopo: Loskop Region

SOYBEANS SENSITIVITY ANALYSIS (GROSS MARGIN PER HECTARE): LIMPOPO: LOSKOP AREA

PRODUCERS YIELD (T/HA) PRICE	3.25	3.50	3.75	**4.00**	4.25	4.50	4.75
R4 250	R 3 160	R 4 223	R 5 285	**R 6 348**	R 7 410	R 8 473	R 9 535
R4 500	R 3 973	R 5 098	R 6 223	**R 7 348**	R 8 473	R 9 598	R 10 723
R4 750	R 4 785	R 5 973	R 7 160	**R 8 348**	R 9 535	R 10 723	R 11 910
R5 000	R 5 598	R 6 848	R 8 098	**R 9 348**	R 10 598	R 11 848	R 13 098
R5 162	**R 6 124**	**R 7 415**	**R 8 705**	**R 9 996**	**R 11 286**	**R 12 577**	**R 13 867**
R5 500	R 7 223	R 8 598	R 9 973	**R 11 348**	R 12 723	R 14 098	R 15 473
R5 750	R 8 035	R 9 473	R 10 910	**R 12 348**	R 13 785	R 15 223	R 16 660
R6 000	R 8 848	R 10 348	R 11 848	**R 13 348**	R 14 848	R 16 348	R 17 848
R6 250	R 9 660	R 11 223	R 12 785	**R 14 348**	R 15 910	R 17 473	R 19 035

SOYBEANS MARGIN ABOVE / BELOW MAIZE (GROSS MARGIN PER HECTARE): LIMPOPO: LOSKOP AREA

YIELD PRICE (R/TON)	R 4 500	R 4 750	R 5 000	**R 5 162**	R 5 500	R 5 750	R 6 000
3.00	-R 1 366	-R 616	R 134	**R 620**	R 1 634	R 2 384	R 3 134
3.25	-R 241	R 571	R 1 384	**R 1 910**	R 3 009	R 3 821	R 4 634
3.50	R 884	R 1 759	R 2 634	**R 3 201**	R 4 384	R 5 259	R 6 134
3.75	R 2 009	R 2 946	R 3 884	**R 4 491**	R 5 759	R 6 696	R 7 634
4.00	**R 3 134**	**R 4 134**	**R 5 134**	**R 5 782**	**R 7 134**	**R 8 134**	**R 9 134**
4.25	R 4 259	R 5 321	R 6 384	**R 7 072**	R 8 509	R 9 571	R 10 634
4.50	R 5 384	R 6 509	R 7 634	**R 8 363**	R 9 884	R 11 009	R 12 134
4.75	R 6 509	R 7 696	R 8 884	**R 9 653**	R 11 259	R 12 446	R 13 634
5.00	R 7 634	R 8 884	R 10 134	**R 10 944**	R 12 634	R 13 884	R 15 134

Notes:

- The cost items reflect the input allocation based on the target yield for the respective crops.
- Although some expenditure items are zero, it is reflected in the budgets to allow for individual inclusion.
- The cost of fuel includes pre-harvest and harvesting costs with the assumption that own machinery is used.
- The cost for soybean seed reflects a combination of own- and purchased seed.
- There will be large fluctuations for insurance cost (hail) based on the associated risk in respective areas. It is advised that producers adjust this cost based on their individual premiums.
- It is important to note that overhead costs are not included and should be accounted for.

Tel: 012 420 5021
Email: admin@bfap.co.za